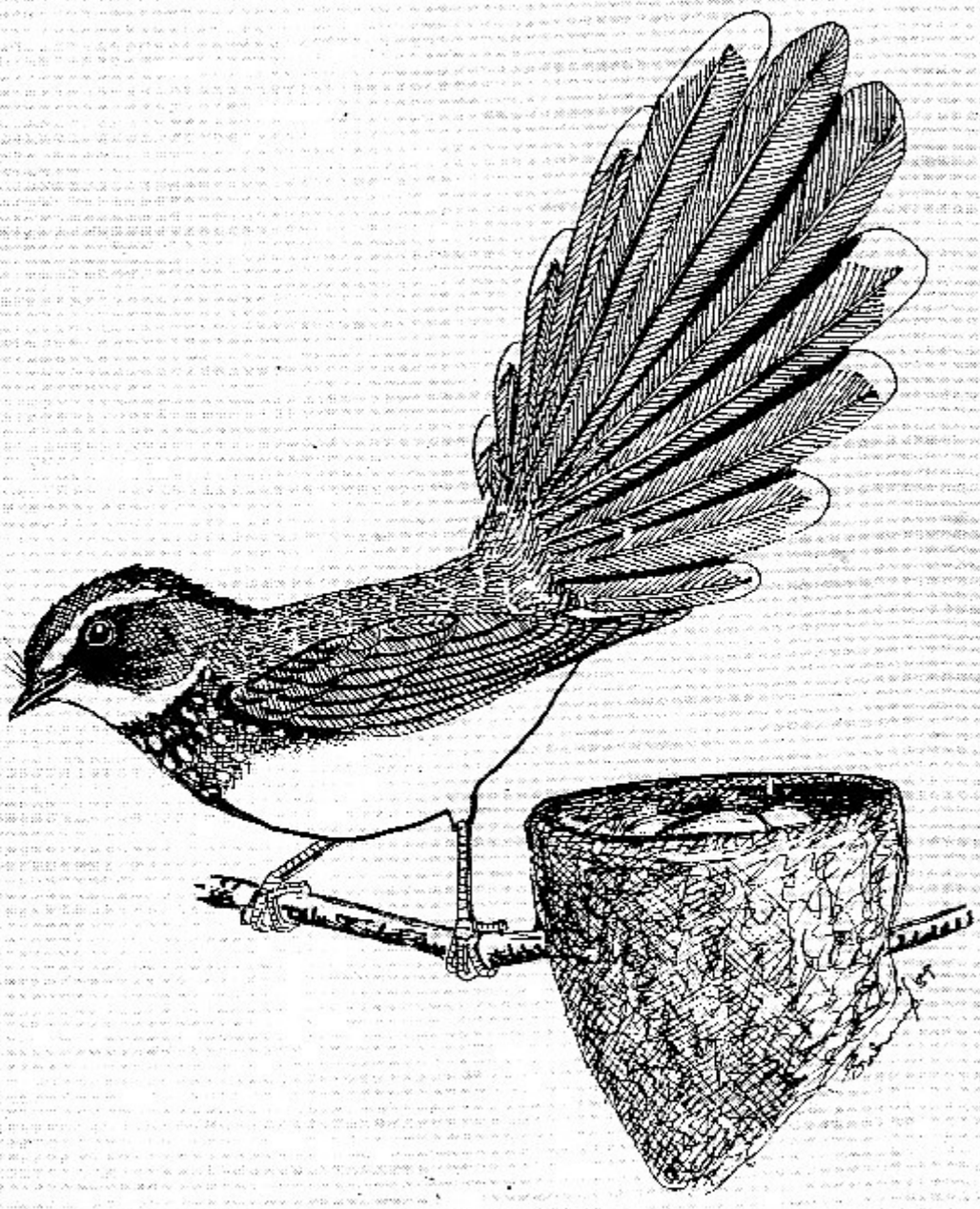
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Sep 4, 1994

Annotated Checklist

of

THE BIRDS OF BANGALORE



Birdwatchers' Field Club
of Bangalore

1994

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Editing: Joseph George

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Birdwatchers' Field Club of Bangalore

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CONTENTS

INTRODUCTION 1

THE AVIFAUNA OF BANGALORE OVER THE YEARS 3
TABLE 1. OCCURRENCE OF SPECIES / RACES IN DIFFERENT HABITATS 8
THE BIOCLIMATE OF BANGALORE 9
REFERENCES 9

THE BIRDS OF BANGALORE 10
PODICIPEDIDAE 10
PELECANIDAE 10
PHALACROCORACIDAE 10
ARDEIDAE 11
CICONIIDAE 13
THRESKIORNITHIDAE 14
PHOENICOPTERIDAE 14
ANATIDAE 14
ACCIPITRIDAE 16
FALCONIDAE 20
PHASIANIDAE 21
TURNICIDAE 22
GRUIDAE 22
RALLIDAE 22
OTIDIDAE 24
JACANIDAE 24
ROSTRATULIDAE 25
RECURVIROSTRIDAE 25
BURHINIDAE 25
GLARIOLIDAE 25
CHARADRIIDAE: CHARADRIINAE 26
CHARADRIIDAE: SCOLOPACINAE 27
CHARADRIIDAE: PHALAROPINAE 30

LARIDAE 30
COLUMBIDAE 30
PSITTACIDAE 31
CUCULIDAE 32
STRIGIDAE: TYTONINAE 34
STRIGIDAE: STRIGINAE 35
CAPRIMULGIDAE 36
APODIDAE: APODINAE 37
APODIDAE: HEMIPROCNINAE 37
ALCEDINIDAE 37
MEROPIDAE 38
CORACIIDAE 39
UPUPIDAE 39
BUCEROTIDAE 39
CAPITONIDAE 39
PICIDAE 40
PITTIDAE 41
ALAUDIDAE 41
HIRUNDINIDAE 42
LANIIDAE 43
ORIOLIDAE 43
DICRURIDAE 44
ARTAMIDAE 44
STURNIDAE 44
CORVIDAE 46
CAMPEPHAGIDAE 47
IRENIDAE 48
PYCNONOTIDAE 48
MUSCICAPIDAE: TIMALIINAE 49
MUSCICAPIDAE: MUSCICAPINAE 51
MUSCICAPIDAE: RHIPIDURINAE 52
MUSCICAPIDAE: MONARCHINAE 52
MUSCICAPIDAE: SYLVIINAE 52
MUSCICAPIDAE: TURDINAE 55
PARIDAE: PARINAE 57
MOTACILLIDAE 57
DICAEIDAE 59
NECTARINIIDAE 59
ZOSTEROPIDAE 60
PLOCEIDAE: PASSERINAE 60
PLOCEIDAE: PLOCEINAE 61
PLOCEIDAE: ESTRILDINAE 61
FRINGILLIDAE: CARDUELINAE 62
EMBERIZIDAE 63

BIRDWATCHING IN BANGALORE: THE PLACES 64
TABLE 2. BIRDWATCHING SITES AND THEIR HABITATS 67
TABLE 3. IRRIGATION TANKS SURVEYED DURING THE WATERFOWL CENSUSES 69

ACKNOWLEDGEMENTS 75

APPENDIX: EXPLANATORY NOTES AND CREDITS 76
ABUNDANCE / OCCURRENCE SCALE 76
STATUS TERMS 76
ABBREVIATIONS 76
NOTES 77
INITIALS AND NAMES OF CONTRIBUTORS 77
ADDRESSES OF THE COMPILERS 79

BIBLIOGRAPHY 80

INTRODUCTION

Joseph George

The checklist of the Birds of Bangalore which follows contains over 330 species of which about 220 occur regularly in this area. Another 110 species have found a place in the checklist because they have been seen some time or other. A few entries are of species which are no longer seen in this region.

The area covered by this checklist is within a 40 km radius from Vidhana Soudha, Bangalore. Within this area we have a wide variety of habitats such as parklands, gardens, cultivation, wetlands including irrigation tanks, boulder strewn hillocks, forests, and of course built up areas.

The checklist has been compiled from data gathered by a large number of observers going back over one and a half centuries. The earliest record is by Jardine and Selby (1828-35) who described *Zoothera c. cyanotus*, *Nyctyornis athertoni* and *Passer d. indicus* from the area. This was followed by reports from J.H.Anderson (1883), E.C.Stuart Baker (1911), R.M.Betham (1912), G.V.R.Frend (1927), H.R.Baker & C.M.Inglis (1930), R.S.P.Bates (1931), E.G.Pythian-Adams (1938, 1940, 1944), Salim Ali (1942-3) and C.Brooke Worth (1953a,b).

From early 1970, there were fairly frequent field outings by groups of birdwatchers who also kept notes of their observations. In 1972 the birdwatchers started functioning informally as the Birdwatchers' Field Club of Bangalore. This informal association still continues. In 1977 the Club brought out a list of the Birds of Bangalore based on data gathered from 1970. The list was released by Dr. Salim Ali on 12 November 1977 at a function at the Raman Research Institute in the presence of a distinguished gathering. The list was revised and brought up to date by the Club and released on 15 November 1992 by Mr. A.N. Yellappa Reddy, Conservator of Forests, Karnataka State Forest Department. The checklist which follows is based on the 1992 list.

Except for the period before 1950, all bird identifications have been by sight and / or by hearing. The possibility of mistaken identity in a few cases cannot be totally ruled out.

A major contributory factor to the understanding of waterbirds of Bangalore has been the annual Midwinter Waterfowl Census, undertaken from 1987. The Karnataka State Forest Department through the good offices of Mr. A.N. Yellappa Reddy has been providing logistic support and helping the census work in many ways from 1989.

Several persons, other than members of the Club, both from Bangalore and elsewhere have contributed useful information for the compilation of this list. The Club is indebted to them.

With the formation of the Club, field outings have been a regular monthly feature for which notices are mailed to a large number of persons and the response has been encouraging. This voluntary work was done at different periods by Dr. Joseph George, Dr. V.J.Victor, Mr. Zafar Futehally and since 1988, by Mr. U.Harish Kumar. The field outings lay stress not only on birds but also on environment in general. Observations made by Club members individually and in smaller groups are also incorporated in the list. Information that could be misused or endanger the birds have been withheld.

The Club has been involved in the organisation of lectures, audio-visual presentations, exhibitions and installation of nest-boxes. Visveswaraya Industrial and Technological Museum provided the necessary infrastructural facilities for these activities in 1979-82.

The large diversity of birds recorded in the area can be the result at least partly of the efforts to beautify the City through planting and landscaping. We the people of Bangalore could take note of this to further enrich the living environment around us. It is hoped that this checklist will promote more rigorous study of the birds of Bangalore.

THE AVIFAUNA OF BANGALORE OVER THE YEARS

S.Subramanya and M.B.Krishna

Ornithological work in Bangalore area started only in the twentieth century. Bird numbers and the pattern of species distribution have however obviously changed considerably since the beginning of human settlements in Bangalore. But records of these changes do not exist. The understanding of the changes in the avifauna of the area is circumstantial, being inferred from the sequential habitat changes (retrogressive succession in most cases) and present day associations between birds and their habitats. It is assumed here that the species richness of the habitats have more or less been the same in the past as in the present.

Before Bangalore was laid out in 1537 by Magadi Kempegowda I (of Yelahanka), the area between Shivaganga [13°11'N & 77°15'E] and Domlur [12°57'N & 77°38'E], now an extension of Bangalore, was covered by a thick jungle (Hasan, 1970). One theory on the origin of the* name 'Bangalore' attributes it to *Pterocarpus marsupium*, commonly known as honne and also as benga. Literally, Bangalore would mean *benga* town (*benga + uuru*). *P. marsupium* is a species of dry and moist deciduous forests, and must have probably occurred in profusion for the place to be named after it. This dry deciduous forest, which Kempegowda I allowed to grow thicker for providing a barrier to his principality, could have supported, along with the existing rocky outcrops, based on present day species affiliations, at least 123 forms of birds. Some of the predominant bird species could have been Grey Partridge, Crow-Pheasant, Koel, White-browed Bulbul, Wood-Shrike, and Jungle Bush-Quail.

Human settlements led to the addition of different habitats to the existing forests and rocky outcrops. With growth of these human settlements, and spread of agro-pastoralism, existing vegetation was

* Ascribed to Suryanath Kamath by Mr Suresh Moona

cleared for dryland agriculture, leading to the formation of scrub and grasslands as well. This transformation while adding at least 82 bird forms, appears to have paved the way for intermingling of birds from grasslands, scrub and forests (ecotone effect). This ecotonal influence based on present day species compositions, would have favoured about 133 existing forms as well.

With agriculture came the creation of tanks and reservoirs, and consequently the creation of Paddy fields downstream of the reservoirs. In this process of development of irrigated agriculture, the waterspread of the tanks and the associated Paddy fields became excellent waterbird habitats. As a consequence, as many as 109 forms of birds dependent on wetlands would have been added. These habitats would also have been favourable for some 30 existing forms of birds. Thus the construction of impoundments across flowing water seems to have made a major contribution of bird species to Bangalore. It can be seen that wetlands and dryland cultivations account for nearly 40% of the avifauna of Bangalore today.

During his reign for about 46 years commencing in 1513, Kempegowda I had two tanks built, the Kempambudhi tank and the Dharmambudhi tank, both of which do not exist as tanks today. The Dharmambudhi tank is the present Bangalore Bus Station and the Kempambudhi tank is now in a decrepit condition. Kempegowda II, his successor, who ruled from 1559 to 1628, had two more tanks built, the Sampangi tank and the Karanji tank, which too are not tanks today. The former is the Kanteerava Stadium and the latter, the National High School Grounds. These tanks apparently served both agriculture and as a source of water to the human population. The addition of Ulsoor and the Cantonment to the city in the eighteenth century, led to greater demands for water. The three Miller's tanks, Ulsoor tank and Sankey tank were built with the prime idea of supplying water to the growing urban centre. Of these the Miller's tanks do not exist now. Taking advantage of the undulating terrain, a large number of tanks were

constructed over the centuries. Nearly 400 of these tanks exist in the Bangalore area today.

From the foregoing discussion it becomes apparent that tanks were created when necessity for water arose but were destroyed when the city engulfed these tanks and pressure for land became high. Another problem for other surviving tanks is of eutrophication and pollution by sewage and industrial effluents. Sewage is being let into many of the city's tanks which drastically alters their biotic species composition. Excessive growth of Water Hyacinth is characteristic of such waters. The 'floating platform' of Hyacinth has favoured species like Purple Moorhen, Pond Heron, and Cattle Egret. The filling up of tanks, and the conversion of paddyfields to residential areas has been a major threat to wetland bird species (Chakrapani *et al*,1990).

Walling up of tanks has also spoiled the shoreline in some cases, as in Ulsoor tank. Bates (1931) noticed in 1930, two Little Grebe nests near the bank where the reeds covered the surface over a considerable area, indicating shallow waters. Worth (1953) once sighted a Little Green Heron there, which also indicates the presence of good reed vegetation. But now one comes across a walled-up tank with green waters and very few birds. In Hebbal tank, loss of a proper shoreline due to excessive growth of water Hyacinth has resulted in the disappearance of Charadrid waders.

There could have been groves of Mango and Tamarind in Bangalore since at least a couple of centuries. Mavalli, which could be translated as 'Mango-village', is an area near Lalbagh garden. Many Mango trees at Lalbagh are supposed to have been planted by Tippu Sultan in the eighteenth century. The location of this garden in a Mango growing area may not have been just a coincidence, but may have been intentional. The growth of the city has led to a loss of all these groves, with only a tree here or a tree there from the original groves being left where it fitted into a bungalow compound. Mango groves existent in Shankarapuram and Gandhibazar area towards the end of the last century were removed for creating extensions (some old trees still do

exist!). Mango in new leaf flush and in flower attracts many insects and consequently insectivorous birds, and when in fruit attracts many frugivores. Insectivores like warblers, flycatchers, White-eyes and loras are attracted by insects swarming around the flush. White-eyes feed on the soft ripe pulp of fruits opened up by parakeets, bulbuls and squirrels. The loss of these Mango and other groves might have led to a loss of a few species of birds like the Stone Curlew. In fact, the only record for Bangalore and one of the few for Southern India of the Whitewinged Black Tit, is from a Mango grove "ten miles west of Bangalore" by Stewart in 1863 (Baker, 1922; Hussain *et al*, 1992).

Plantations of other species like Cashew, *Casuarina* and *Eucalyptus* are perhaps much more recent and in that order. Casuarina was grown to meet fuelwood requirements while Eucalyptus is being grown more as a commercial cash crop. Casuarina was used as a fuelwood species as early as the 1930s while Eucalyptus growing became more extensive in the 1950s and 1960s. Such monocultures, whether they be native or exotic species, do not harbour much birdlife. Most groves and plantations hardly have any undergrowth because of weeding as in the former, or because of high density planting as in the latter. If at all there does exist birdlife, it is mostly confined to the tree canopy layer and that too seasonally.

Lalbagh was created by Hyder Ali, in 1760. It was then a small private garden of about 16 hectares including an orchard of Mango and other trees. Though it was the first garden, the parks and gardens, as we understand today, were established during the British rule, in the latter half of nineteenth century (see Hasan, 1970). It was during this period that the Langford Gardens, Richmond Park, Cole's Park, and the many promenades and boulevards came into existence (Hasan 1970), as also perhaps the M.N. Krishna Rao Park in Basavanagudi. The largest park in Bangalore, Cubbon Park, was laid out in 1864 (Hasan 1970). A variety of ornamental, flowering and fruiting trees and plants were systematically introduced into these gardens and parks (which are sadly neglected today). Creation of these gardens and parks added a new avian habitat

to Bangalore which would have attracted about 21 additional forms of birds and favoured some 85 existing forms.

Photographs of Bangalore from the last century and the beginning of the present century show a noticeable pattern in the types of trees planted. Landscape views of the old city area show mainly Coconut palms while the views of the cantonment area show dicot trees. The growth of home gardens, with many ornamental flower and foliage shrub species added a new layer to the predominantly bi-layered parkland vegetation. This would have encouraged many shrub zone species like Tailor Bird and Ashy Wren-Warbler. Many of the old bungalows still retain large trees which in a few places have attracted nesting populations of Night Herons. Many roadside plantings which have matured into shady dense-canopied avenues have become important roosting sites for mynas, crows, parakeets and the migrant Sturnids. In recent years many trees with showy blooms are being planted along the roads, mostly in quiet residential areas. Tree-top species such as Hair-crested Drongo and Blossom-headed Parakeet are being increasingly seen over the last decade. Haircrested Drongo makes its appearance when *Eucalyptus* (in open stands) and *Erythrina* are in flower.

Bangalore's growth has been phenomenal: it has been the fastest growing city in India. From around 2 sq.km. in 1537, to 61 sq.km. in 1961, it has grown to a problematic 360 sq.km. today! The spread of the city has pushed several bird species out. Babblers, resident shrikes, Redheaded Merlin, and perhaps Redstart are no longer seen within the city, even in its parks. The recent explosive growth has engulfed many of the villages which were around Bangalore. The cultivated fields (both dryland and wetland), and the grasslands which were used for grazing, attached to these villages have been totally lost. Lesser Florican was said to have been "numerous in rains and cold weather" over a century ago. Great Indian Bustard has been recorded near Bangalore in the early part of this century. Sandgrouse also must have been present, given that tall grassland habitats of the Bustard existed. Growth has not been

restricted to an increase in area of the city; there has been a vertical growth of the city as well, with multistoreyed buildings coming up rapidly in the past couple of decades. This has provided a new nesting and roosting habitat for Blue Rock-Pigeons. With TV in Bangalore, innumerable Yagi antennas have provided new perch sites for birds.

The evolution of Bangalore during these five centuries has led to the formation of habitat mosaics which have led to a greater avian diversity. Table 1 gives the number of forms found in each habitat. It can be seen from the table that only four habitats account for more than three fourths of the forms. Conservation efforts should be targeted towards these four habitats on a preferential basis for maximum effectiveness.

TABLE 1. OCCURRENCE OF SPECIES / RACES IN DIFFERENT HABITATS

Habitat	Regular[1]	Total	New[2]	Exist[3]
Pre 1537				
aerial	7	13		
rocky	15	21		
forest	62	92		
Post 1537				
drylands	72	88	61	27
grassland	31	35	31	32
scrub	68	92	18	74
wetland	110	139	109	30
Post 1850				
parks / gardens	75	106	21	85

1. This column shows the number of forms that are regularly found in the habitat today; it excludes the stragglers, vagrants and others for which we still have insufficient information.
2. This column shows an estimate of the new forms added to the existing avian assemblage as a consequence of the addition of a new habitat.
3. This column shows an estimate of the already existing forms in the avian assemblage which capitalised on the opening-up of a new habitat. There is a slight approximation in the figures in this column: the numbers represent the difference between the "new" forms and the total number of forms that are present in the habitat today. New forms which could have secondarily adapted to an existing habitat are not distinguished.

THE BIOCLIMATE OF BANGALORE

The Bangalore area has an elevation ranging from around 850 m to around 930 m above MSL and is equidistant from the eastern and western coasts. According to Koppen's broad climate classification, Bangalore falls under the tropical monsoon plateau type (see Mani, 1985). Bangalore has around 57 rainy days per year with a mean annual rainfall of 850 mm. It receives 64 percent of its rainfall from the southwest monsoon with around 37 rainy days in this period. The intensity of rain is greatest in September followed by May. April and October are transition months when wind direction changes. The duration of sunshine is longest in February- March (9.5 hrs) reaching a minimum in July (3.8 hrs). Bioclimatically, Bangalore falls in the dry deciduous forest type (Champion and Seth, 1968). Holistically, it is classed in the "*Terminalia-Anogeissus latifolia-Tectona*" series of the tropical dry deciduous forest formation (Gaussen *et al,* 1965; Puri *et al,* 1983).

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THE BIRDS OF BANGALORE

The number against each bird is the number in Ripley's Synopsis (1982).

PODICIPEDIDAE

5. *Podiceps ruficollis*. Little Grebe. Common breeding resident. Found mainly in tanks and ponds. The species is suspected to be nomadic, as aggregations of over 300-500 birds have been observed in September, January and March. Nests have been seen in March, April and August. Bates (1931) reported nests of this species from Ulsoor tank in 1930, when there was good shoreline vegetation in the tank.

PELECANIDAE

21. *Pelecanus philippensis*. Grey Pelican. Four sightings, all in large tanks, from September to March. First at Nelligudda Tank near Bidadi on 8 March 1986 (MBK).

PHALACROCORACIDAE

26. *Phalacrocorax carbo*. Large Cormorant. Included in the 1977 checklist. Subsequently, one individual seen at Harohalli tank on 16 January 1992 (SK, WC).

27. *Phalacrocorax fuscicollis*. Indian Shag. One individual observed at Hennagara tank on 19 January 1989 (MBK, OCN, MD, WC).

28. *Phalacrocorax niger*. Little Cormorant. Not too common nonbreeding resident. Found in tanks and occasionally even in sewage streams like Vrishabhavathi on the city outskirts (TSS). The largest aggregation is of 76 birds seen at Lalbagh tank on 9 December 1990 (NRS, PAU).

21. Hebbal tank

29. *Anhinga rufa*. Darter. Rare nonbreeding resident. One bird seen at New Obichudanahalli tank on 21 and 22 June 1986 (SK); another at JP nagar tank on 27 May 1986 (JNP); and yet another at Harohalli tank on 16 January 1992 (SK, WC).

ARDEIDAE

35. *Ardea cinerea*. Grey Heron. Not too common nonbreeding resident. A solitary feeder; rests and preens in small groups along the water edge. Often seen using Hyacinth as foraging platforms right in the middle of tanks (SS). Immatures have been seen in the second week of November (JH).

37. *Ardea purpurea*. Purple Heron. Not too common nonbreeding resident. Solitary; found in tanks, reedbeds and Paddy fields. Uses Hyacinth as foraging platforms more frequently than the Grey Heron. Immatures have been seen in August 1990 (JH).

42. *Ardeola grayii*. Pond Heron. Abundant resident with only two known instances of breeding: one in Lalbagh on 14 May 1979 (SS) and one in what is now Banashankari III stage on 5 May 1980 (MBK). The most common of all the waders, found in almost every water body, whether still or flowing, clear or polluted, in reed covered marshes and Paddy fields. The birds have been seen picking up prey by awkwardly hovering over water away from the shore (Krishna, 1978). Four birds seen snapping at bees while perched on a Willow tree (*Salix tetrasperma*) in bloom at Lalbagh (JNP, JH, KABS; Prasad & Hemanth, 1992).

44. *Bubulcus ibis*. Cattle Egret. Abundant breeding resident. Roosts within city limits along with Little Egrets and Pond Herons. Uses Hyacinth as foraging platforms. Large aggregations of over 500 birds seen in winter (eg. at Hebbal and Nagavara).

35. 5 pairs nesting before T.G.halli (27 Dec 92)
1 seen with a twig - Valley School (12 Jul 92)

46. *Ardea alba*. Large Egret. Not so common nonbreeding resident. Usually solitary but up to 20 birds have been observed in early summer in large tanks.

47. *Egretta intermedia*. Smaller Egret. Not so common nonbreeding resident. Birds have been observed intentionally disturbing sediments with their feet while feeding (OCN, JNP, MBK).

48. *Ardeola striatus*. Little Green Heron. Rare. First observed by Worth (1953) in Ulsoor. Subsequently there have been a few more sightings on 8 December 1983 in a Paddy field in Nagavara (SS), on 14 and 15 April 1990 at Muthyala maduvu, Anekal (JNP, TSS).

49. *Egretta garzetta*. Little Egret. Common nonbreeding resident. Has been seen roosting with Cattle Egrets. An unusually huge aggregation of 1750 birds was observed on 11 April 1983 feeding on the stranded aquatic fauna of Hebbal tank going dry (SS).

50. *Egretta gularis*. Indian Reef Heron. Rare. Four sightings of the grey phase. First seen on 27 April 1983 at Hebbal tank (SS) and subsequently at Hennagara tank in January 1989 (MD, WC) and January 1990 (WC). Probably the same individual was seen on 21 March 1990 at the same site (MSJ, GSA). The white phase is suspected to be present since egret like birds foraging typically like Reef Herons have been noticed on several occasions.

52. *Nycticorax nycticorax*. Night Heron. Not too common breeding resident. Breeds from November to June on large dense canopied roadside trees in Basavanagudi and Malleswaram. Roosts have been seen in Hebbal and Cooke's town. Breeding trees are also used as roosts. In Hebbal a colony of 53 nests on a *Ficus religiosa* was abandoned following leaf fall (late February 1990, SS). One individual was seen floating buoyantly on Lalbagh tank on 27 March 1983 (MBK).

52. Floating in Sankey Tk. 4th morning dipped it left & flew off

55. *Ixobrychus minutus*. Little Bittern. Included in the 1977 checklist; no recent sightings.

56. *Ixobrychus cinnamomeus*. Chesnut Bittern. First seen at Kumbalagod on 15 July 1979 (SS), subsequently at Nagavara, Vasanthpura and Thippagondanahalli in tall Paddy / Bulrushes in June, July and August (SS, TSS, SK, KPK, HBP).

59. *Botaurus stellaris*. The Bittern. Blanford is reported to have observed the species in Bangalore (Baker and Inglis, 1930). No recent sightings.

CICONIIDAE

60. *Mycteria leucocephala*. Painted Stork. Rare nonbreeding resident. A few individuals have been seen from June to January (Futehally, 1981; TSS, SK, JNP).

61. *Anastomus oscitans*. Openbill Stork. Rare nonbreeding resident. The largest flock observed is of 43 birds soaring over Bannerghatta National Park on 8 November 1987.

62. *Ciconia episcopus*. Whitenecked Stork. Uncommon nonbreeding resident but the most common of our storks. Found mainly on mudflats bordering tanks and occasionally in freshly ploughed Paddy fields. The largest aggregation seen is of 17 individuals at Doddatumkur tank in January 1990 (WC).

63. *Ciconia ciconia*. White Stork. Rare winter visitor. First sighting is of four birds at Hebbal tank on 21 April 1983 which later increased to 11 two days later (SS). On 15 and 17 January 1990, 85 individuals were recorded, probably the largest aggregation observed for our region (SS, OCN, AM, WC).

THRESKIORNITHIDAE

69. *Threskiornis aethiopica.* White Ibis. Not so common nonbreeding resident. Largest observed flock is of 18 birds.

70. *Pseudibis papillosa.* Black Ibis. Rare nonbreeding resident. First sighting is of two birds at Kaggalahalli tank before Harohalli on Kanakapura Road on 18 January 1987 (SK).

71. *Plegadis falcinellus.* Glossy Ibis. Rare winter visitor. Two sightings on 18 January 1987 of one and three individuals at Jakkur tank and Harohalli tank (SK) respectively; and another sighting of 21 birds at Jakkur tank on 23 February 1992 (KPK).

72. *Platalea leucorodia.* Spoonbill. Rare nonbreeding resident. Occurs in small (<5) numbers. A flock of 12 birds seen at Mugbala tank on 20 January 1990.

PHOENICOPTERIDAE

73. *Phoeniconaias major.* Greater Flamingo. Three individuals at Hebbal tank on 6 & 7 September 1986 (SKV).

ANATIDAE

82. *Anser indicus.* Barheaded Goose. Uncommon winter visitor. Occurs regularly in large tanks like Hoskote, where over 600 birds were seen on 4 March 1990 (SS, JNP).

88. *Dendrocygna javanica.* Lesser Whistling Teal. Rare nonbreeding resident. A shallow water feeder found feeding even in waters just an inch deep, usually in the early monsoon period. The largest flock observed is about 30 birds at Haragadde (WC 1989). Have been seen in Puttenahalli and Lalbagh tanks; and circling over IISc & CPRI campuses in July 1988 (RJRD).

90. *Tadorna ferruginea.* Brahminy Duck. Rare winter visitor. First seen on 18 December 1983 in a marsh close to Nagavara tank (SS). Subsequently 17 birds have been seen at Hoskote in January 1990.

93. *Anas acuta.* Pintail. Abundant winter visitor. Next only to the Garganey in abundance amongst our ducks. Departs earlier than Shovellers.

94. *Anas crecca.* Common Teal. Not too common winter visitor. Found mixed with Garganeys, and perhaps often overlooked.

97. *Anas poecilorhyncha.* Spotbill Duck. Uncommon breeding resident. Occurs in small numbers, but a flock of over 200 seen at Hoskote in January 1990. An adult with six chicks observed in June-September 1977 in Lalbagh tank (MBK).

101. *Anas strepera.* Gadwall. Included in the 1977 checklist; no recent sightings.

103. *Anas penelope.* Wigeon. Rare winter visitor. Seen in small numbers.

104. *Anas querquedula.* Garganey. Abundant winter visitor. The most common of our ducks. Starts arriving in September and stays on till April. The numbers reach a peak in February when the males start acquiring the breeding plumage and start courting the females.

105. *Anas clypeata.* Shoveller. Common winter visitor. Arrives late and departs late; perhaps the last migratory duck to leave our area.

108. *Aythya ferina.* Common Pochard. Not too common winter visitor. Partial to large deep water tanks where the species shows a tendency to stay separate from other ducks.

97 Hebbal tank - 2-8-94 (5)

114. ***Nettapus coromandelianus.*** **Cotton Teal.** Not too common nonbreeding resident. Usually found in small numbers, but a flock of 150 birds has been seen at Yelahanka tank (WC 1991).

★ 115. ***Sarkidiornis melanotus.*** **Comb Duck.** Rare winter visitor. First sighting is of a specimen obtained on 14 January 1943 "west of Bangalore" (Rythian-Adams, 1944). Only two recent sightings, one in March 1988 (Yellamallappachetty tank, WC) and another in January 1990 (Bidarekere tank, WC).

ACCIPITRIDAE

124. ***Elanus caeruleus.*** **Blackwinged Kite.** Uncommon breeding resident. Recorded breeding in January (at NDRI campus -AS) and October (TAN). The NDRI nest was built about 15 m from the ground (AS). An individual was observed hovering for 353 seconds on 16 August 1985 (JNP, SK).

★ 130. ***Pernis ptilorhynchos.*** **Honey Buzzard.** Uncommon breeding resident. Parents with four newly fledged young seen on 24 April 1984 in a dry Paddy field near Kodigehalli (SS). Another pair seen building a nest in the Bannerghatta Range Forest.

133. ***Milvus migrans govinda.*** **Pariah Kite.** Common breeding resident. The most common raptor in Bangalore, roosting communally in large aggregations in several locations in the city. Satheesan (1989) reports over 1200 birds roosting near Ulsoor tank. The breeding season extends from October to May.

134. ***Milvus migrans lineatus.*** **Blackeared Kite.** Common winter visitor. Identified by the comparatively larger size than the resident race and conspicuous pale underwing carpal patches. Stays from October to April (MBK). Interestingly The Hbk (1968, 1978) does not mention of this race in the south, though a male was obtained at Anandapuram in Shimoga district on 22 February 1960 (Abdulali and Nair, 1968, JBNHS 65:774).

115. Feb 3, 1991, TG Halli (with KPK) - 2♀

130. Display in May. 93 Shivanahalli

135. ***Haliastur indus.*** **Brahminy Kite.** Common breeding resident. Found abundantly in Paddy fields during ploughing, puddling and harvesting when it feeds mostly on crabs. Observed to feed on dragonflies during early mornings in winter, when the wings of the dragonflies are wet and they are unable to fly (SS). The breeding season is from December to May. The post breeding moult is seen in late June (MBK).

136. ***Accipiter gentilis.*** **Goshawk.** One individual seen at GKVK on 16 November 1990 and again at the same site on 5 November 1991 (SS). Another individual was seen staying on for several months in JP nagar (JNP, SK, UHK; Subramanya, *et al.* in press).

138. ***Accipiter badius.*** **Shikra.** Common breeding resident. Frequents gardens, residential areas, parks, suburbs, scrub with good tree growth, cultivation, and wooded areas. Breeds from October to May and immatures seen subsequently till August. Nesting trees include Mango, Tamarind, Java Fig, Indian Cork and *Eucalyptus*.

147. ***Accipiter nisus.*** **Sparrow-Hawk.** Rare. Rare winter visitor. Sightings are in November and December (SS, RJRD, UHK, JH).

153. ***Buteo rufinus.*** **Longlegged Buzzard.** One bird seen flying over IISc in December 1985 (RJRD).

157. ***Butastur teesa.*** **White-eyed Buzzard.** Uncommon breeding resident. One seen taking a twig for nest building in February in the mid 1980s (AKR).

161. ***Spizaetus cirrhatus.*** **Crested Hawk-Eagle.** Rare. Has been seen singly in parklands and wooded areas throughout the year except summer months.

163. ***Hieraaetus fasciatus.*** **Bonelli's Eagle.** Three sightings. One flying over Hebbal on 13 November 1982 (SS); one perched on a rock in

Karadikal State Forest, on 14 October 1990 (SS, JNP); one soaring over waterhole in Ragihalli State Forest on 18 January 1991 (SK, JNP).

164. *Hieraaetus pennatus*. Booted Hawk-Eagle. Uncommon winter visitor. Both dark and light phases. First sighted on 16 January 1981 (at Bannerghatta, VS). Subsequent sightings in October, November, January and February (VS, LS).

168. *Aquila rapax*. Tawny Eagle. Rare. One bird diving at Grey Partridges in VM Temple area on 28 May 1986 (JNP). One nest observed in GKVK in April 1987; two young fledged out of the nest (SS).

170. *Aquila clanga*. Greater Spotted Eagle. Winter visitor. One individual each seen on 14 January 1990 at Kogilu, Sadahalli and Chikkasanne tanks (VS, WC).

172. *Ictinaetus malayensis*. Black Eagle. Rare. All the sightings have been at Bannerghatta or at Muthyala maduvu from January to May (JNP, SK, MSJ, GSA). First sighting is of an individual at Bannerghatta National Park over Mirza Hill on 29 March 1986 (SK, JNP, NDR, RMA).

178. *Sarcogyps calvus*. Black Vulture. Rare. Sightings are in August, September and October.

182. *Gyps indicus*. Indian Longbilled Vulture. Uncommon breeding resident. Restricted to rocky hills like Dodda Ragihalli Betta and Nandi Hills (SS).

185. *Gyps benghalensis*. Indian Whitebacked Vulture. Not too common breeding resident. Nests with eggs have been observed on 15 March 1987 on a roadside tree on Doddaballapur Road (SS).

187. *Neophron percnopterus*. Scavenger Vulture. Not too common breeding resident. Common near slaughter houses and tanneries. An pair has been nesting at IISc campus since a decade (Daniels, 1990).

189. *Circus cyaneus*. Hen Harrier. Rare winter visitor. Seen at Kalkere tank on 16 January 1990 (SS, OCN); one female at Doddakere off Chikkaballapur road on 20 January 1990 (SS, JH, JNP).

190. *Circus macrourus*. Pale Harrier. Uncommon winter visitor. Next in abundance to the Marsh Harrier.

191. *Circus pygargus*. Montagu's Harrier. Uncommon winter visitor. Usually seen in October-November quartering Ragi fields at GKVK (SS).

192. *Circus melanoleucos*. Pied Harrier. Rare. Sightings are in December and January at Hebbal, Madivala, Uttarahalli, and Hesserghatta tanks (SS, TSS, SK, UHK, MBK, NS, LS).

193. *Circus aeruginosus*. Marsh Harrier. Not too common winter visitor. Found mainly in tanks and Paddy fields. In Paddy fields has been found feeding on Little Egret, Green Sandpiper, Bandicoot (*Bandicoota benghalensis*), and Garganey (brought from elsewhere, SS); also on Spotbill Duck (UHK).

195. *Circaetus gallicus*. Short-toed Eagle. Uncommon breeding resident. One individual taking nesting material in Bannerghatta State Forest on 26 November 1989 (MBK, UHK, SK) and in January-February 1990 (UHK).

197. *Spilornis cheela*. Crested Serpent Eagle. Uncommon resident. Seen in well wooded areas (eg. Bannerghatta Range Forest and off Kanakapura road), but could turn up occasionally in the outskirts (eg. Hoskerehalli - MBK, OCN, LFS; and Vasanthnagar - JNP).

203. *Pandion haliaetus*. Osprey. One sighting of an individual at the Lalbagh tank on 17 February 1977 (MBK, JG).

208. *Falco biarmicus jugger.* Laggar Falcon. Rare. First seen on 17 February 1980 off Rajajinagar near a Redheaded Merlin nest (SS). One seen near Hullur tank in January 1991 (JH, WC).

209. *Falco peregrinus japonensis.* Peregrine Falcon. Rare. First seen on 9 December 1981 at the KSCA cricket stadium swooping on a flock of Blue Rock Pigeons during a test match (SS). Seen subsequently in CPRI campus. On 16 February 1990 one seen flying over a flock of Pintails and Garganeys (SS).

211. *Falco peregrinus peregrinator.* Shaheen Falcon. Rare nonbreeding resident. Breeds in Nandi Hills. Has been seen in Bannerghatta Range Forest (MBK). An individual was seen being mobbed by a pair of Pariah Kites on the Central Tower of IISc on 22 August 1990 (Daniels, 1990). This is the first record for Urban Bangalore.

212. *Falco subbuteo.* Hobby. One adult at Kalkere State forest on 17 June 1989 allowed observation for 45 minutes (JH, MSJ, GSA; Aditya 1989).

219. *Falco chicquera.* Readheaded Merlin. Uncommon breeding resident. First observed in August 1976 (Verghese *et al*, 1978); first observed breeding in 78-79 and 79-80 where the pair raised broods of three and four young (Subramanya 1979, 1981). Breeds from October to May. Nearly 90% of the prey comprise of House Sparrows (Subramanya 1982, 1985). Other prey species observed are Large Pied Wagtail and Redrumped Swallow (Subramanya 1985). In paddy fields they have been found capturing Baya, Indian Longtailed Warbler, Spotted Munia, and Indian Pipit. At present at least half a dozen pairs are known to be present in Bangalore.

vague

223. *Falco tinnunculus.* Kestrel. Uncommon winter visitor. Can be seen in GKVK, after November when the crops are harvested (SS).

209. flock of Pintail & garganey

246. *Francolinus pondicerianus.* Grey Partridge. Common breeding resident. Partial to scrub, but also found in dense hedges along dryland cultivation. Breeds from July to November.

250. *Coturnix coturnix.* Common Quail. Rare winter visitor. One bird recorded hitting an electric wire and getting electrocuted in Rajajinagar (Subramanya, 1982).

252. *Coturnix coromandelica.* Rain Quail. Rare. The only two sightings after the 1977 checklist are: of two birds at the Herbivore Safari of the Bannerghatta National Park on 9 June 1988 and the second of a bird at Badamanavarthi State Forest on 9 September 1990 (SS).

253. *Coturnix chinensis.* Bluebreasted Quail. One bird seen in the VM temple area on 14 June 1992 (Prasad & Madhusudhan, 1993).

257. *Perdicula asiatica.* Jungle Bush Quail. Uncommon breeding resident. One nest with four eggs in a Ragi field seen on 29 October 1987 was abandoned after harvest (SS).

263. *Perdicula erythrorhyncha.* Painted Bush Quail. One male seen on a bush close to Ragi cultivation in Karadikal State Forest of Bannerghatta Range on 14 October 1990 (Subramanya & Prasad, 1991).

275. *Galloperdix spadicea.* Red Spurfowl. Included in the 1977 checklist; no recent records.

278. *Galloperdix lunulata.* Painted Spurfowl. Unconfirmed sighting at Bannerghatta National Park on 14 August 1988 (JNP). One pair sighted in Bannerghatta range forest on 18 January 1991 (JNP, SK, OCN, MBK).

241. Type locality Bangalore
Francolinus pictus pictus Jardines & Selby
Abdulali JBNHS 66(2)

246. F. pondicerianus in Russell market. GVR Frend JBNHS Vol. 46

301. *Gallus sonneratii.* Grey Junglefowl. Uncommon breeding resident. Partial to scrub. Found in Bannerghatta Range Forest, Badamanavarthi State Forest, and off Thalaghatpura (JNP).

311. *Pavo cristatus.* Common Peafowl. Uncommon breeding resident. Found in Bannerghatta Range Forest; also in Badamanavarthi State Forest.

TURNICIDAE

314. *Turnix tanki.* Yellowlegged Button Quail. Included in the 1977 checklist. Only one recent sighting on 27 November 88 at IISc campus (RJRD).

316. *Turnix suscitator.* Common Bustard Quail. Included in the 1977 checklist. One subsequent nest record at Bannerghatta Range forest, when the male was observed breaking the cracked egg to release the young (MKK).

GRUIDAE

326. *Anthropoides virgo.* Demoiselle Crane. Included in the 1977 checklist. No recent sightings. However Pythian Adams (1940) mentions that 'several thousands' of cranes regularly wintered around Nanjangud indicating that the birds could have been common in Bangalore once.

RALLIDAE

329. *Rallus striatus.* Bluebreasted Banded Rail. Uncommon breeding resident. First seen at a paddy field near Hebbal tank on 19 July 1982 where a nest with seven eggs was observed subsequently (SS). An individual has also been observed pecking at a rotten carpace of a crab at Kodigehalli in January 1984 (SS). Has also been seen at a roadside puddle at Bannerghatta National Park on 13 September 1989 (SK).

316. 5 May '92 - Valley School
1 specimen from — " — 10/11/92

337. *Porzana pucilla.* Baillon's Crake. One sighting of a pair close to a paddy field near Hebbal Tank on 28 December 1982 (SS).

Pusilla

339. *Porzana fusca.* Ruddy Crake. Not too common breeding resident. First seen on 3 August 1982 in a paddy field in Hebbal (SS). Frequents paddy fields and reedbeds. Three family parties have been observed with eight, four and seven individuals, in the same area where it was first seen (SS). Subject to poaching: an individual in a 'framed net trap' was rescued on 26 January 1989 and released (SK, BKC, MBK). Two sightings in a marshy deserted quarry (SK, JNP).

342. *Amaurornis akool.* Brown Crake. One bird seen at Lalbagh tank on 7 November 1991 (SS, MBK, KABS, STB)

343. *Amaurornis phoenicurus.* Whitebreasted Waterhen. Common breeding resident. Frequents paddy fields, reedbeds, Hyacinth covered waterbodies and streams overgrown on either side with vegetation. The observed breeding season is from April to December. Two unusual nest sites have been seen. One nest was placed on the ground in a freshly transplanted paddy field over a mat of Pongamia leaves and had four eggs; the other was a crude platform of bent paddy stems placed about 30 centimetres from the ground in about a metre tall paddy plants (SS).

346. *Gallicrex cinerea.* Kora. Uncommon resident. A single male first seen on 26 April 1984 in a paddy field close to Hebbal tank; subsequently on 25 June and 8 July 1984 (SS).

347. *Gallinula chloropus.* Moorhen. Common breeding resident. Restricted to tanks with floating and emergent vegetation. Has been observed breeding from February to July.

349. *Porphyrio porphyrio.* Purple Moorhen. Common breeding resident. Large populations of this species were observed in tanks especially with a good growth of Water Hyacinth. Nests have been observed during August.

350. ***Fulica atra.*** **Coot.** Common breeding resident. The most common rail. Found in vegetated tanks with at least some open water. Breeds from June to December. An aggregation of 1470 birds at Hebbal tank on 12 September 1979 could have been a migratory flock (SS).

OTIDIDAE

354. ***Choriotis nigriceps.*** **Great Indian Bustard.** Extinct in the area. Once observed "on an open plain some 10 miles west of Bangalore" by Baker between 1910 and 1930 (Baker and Inglis, 1930).

357. ***Sypheotides indica.*** **Lesser Florican.** Extinct in the area. Anderson (1883) found the species to be "numerous in rains and cold weather in Bangalore". Betham (1912) shot a bird on 14 December 1911 in a scrub forest with scattered paddy fields. This apparently is the last record for Bangalore.

JACANIDAE

358. ***Hydrophasianus chirurgus.*** **Pheasant-tailed Jacana.** Not too common breeding resident. The largest nesting population hitherto observed was at JP nagar tank (not existing now) where over 15 pairs nested in a vast stretch of Water Hyacinth. Breeds from June to August. Have been seen feeding in uncultivated but inundated paddy fields in June - August 1983 (Subramanya 1988).

359. ***Metopidius indicus.*** **Bronzewinged Jacana.** Rare. Sightings: one immature bird at Vasanthpura main tank on 25 February 1986, an adult at Arakere tank on Bannerghatta Road in October 1987 (JNP, SK), at Jigani in January 1990 (NS, OCN), at Kumbalgod tank on Mysore road on 24 April 1992 (KPK, SSr).

ROSTRATULIDAE

429. ***Rostratula benghalensis.*** **Painted Snipe.** Uncommon resident. Marshy tank edges and paddy fields are favourite habitats. A pair possibly resident at IISc campus (RJRD).

RECURVIROSTRIDAE

430. ***Himantopus himantopus.*** **Blackwinged Stilt.** Common winter visitor. Found in both still and flowing waters, whether clear or polluted and in paddy fields. Individuals have been observed overstaying in May and June 1983 (SS). An unprecedented number of over 1300 birds were observed on 1 April 1983 in Hebbal tank going dry (SS).

432. ***Recurvirostra avocetta.*** **Avocet.** One bird seen feeding at Hoskote tank on the morning of 7 January 1990 (SB).

BURHINIDAE

436. ***Burhinus oedicnemus.*** **Stone Curlew.** Rare. Only recent sighting after the 1977 checklist is of a bird seen at GKVK on 2 September 1978 on open laterite ground with scattered bushes (SS).

437. ***Esacus magnirostris.*** **Great Stone Plover.** Seen at New Obichudanahalli tank in April-May 1985 (JNP); two birds stayed on at the same site in 1986 and were seen from April to August (SK). Found at Thippagondana halli (LS, SSr).

GLARIOLIDAE

440. ***Cursorius coromandelicus.*** **Indian Courser.** Rare resident possibly breeding. Used to be found in vast grasslands. A bird was collected on 26 April 1952 "about 11 miles south-west of Bangalore" by Robert B. Watson and on a subsequent visit two birds were seen at the same site (Worth 1953). Was included in the 1977 checklist based on observations in low scrub in North Bangalore (JG). Recent sightings of

small populations are at Jakkur aerodrome (Paresh 1989) and Ramohalli-Hirekere area on Mysore road (HBP).

444. *Glareola lactea*. Small Indian Pratincole. Uncommon nonbreeding resident. First seen at New Obichudanahalli tank (March to May 1986; TSS, SK, JNP). Subsequent sightings have been in January and April (UHK, SM) In April 1986 a pair was seen chasing away crows from an island in the New Obichudanahalli tank which could be an indication of breeding (JNP, SK).

CHARADRIIDAE: CHARADRIINAE

365. *Vanellus cinereus*. Greyheaded Lapwing. Rare straggler. One bird seen in a newly transplanted paddy field near Kodigehalli on 18 April 1983 (Subramanya, 1987); and a sighting near GKVK / Jakkur airfield (UKP).

★ **366. *Vanellus indicus*. Redwattled Lapwing.** Common breeding resident. Has been observed breeding from March to May. Often heard calling while flying over the city at night.

370. *Vanellus malabaricus*. Yellow-wattled Lapwing. Common breeding resident. Breeds from April to August. Often heard calling while flying over the city at night. Arrives regularly in the dryland farm at GKVK in October - November soon after the monsoon crops are harvested and can be invariably seen in flocks of about 40 birds (SS). At grassland habitats in IISc, stays from April to November only, and disappears later (LS).

371. *Pluvialis squatarola*. Grey Plover. Only one sighting for Bangalore (ZF).

378. *Pluvialis dominica*. Eastern Golden Plover. Rare winter visitor. 16 birds at Hoskote tank on 4 February 1990 (KPK, SSr) and 42 birds in January 1992 (OCN, NS, WC). Sighted again during the January 1993 waterfowl census (OCN, NS).

366. Communal courtship 4 pairs on 10 March 94

379-80. *Charadrius dubius*. Little Ringed Plover. Common winter visitor and rare breeding resident. Found on mudflats and meadows near tanks and paddy fields. On 1 April 1983 more than 2000 birds were seen foraging on the mudflats of Hebbal tank which was drying (SS). Though the sightings of birds seen at New Obichudanahalli tank from April to June 1986, during August 1987, June 1988 and April 1989 (SK) could be those of a resident population, a nest with eggs found at Kengeri tank on 29 March 1991 (MKK) confirms it to be a breeding resident.

381-82. *Charadrius alexandrinus*. Kentish Plover. Not too common winter visitor. Shares the same habitat with the Little Ringed Plover.

CHARADRIIDAE: SCOLOPACINAE

388. *Numenius arquata*. Curlew. Rare winter visitor. The most recent sighting is of three birds at Hoskote tank on 25 February 1990 (JNP,SK).

389. *Limosa limosa*. Blacktailed Godwit. Not too common winter visitor. First seen on 18 September 1981 at Hebbal tank (Subramanya, 1981).

392. *Tringa erythropus*. Spotted Redshank. Rare winter visitor. First sighting is of three birds at Chikkasanne tank on 16 January 1990 (SS, OCN, AM). Two birds seen at Dodda Gubbi tank the next day (SS).

394. *Tringa totanus*. Common Redshank. Uncommon winter visitor. Seen usually in small numbers. This species was more common during the seventies and a flock of over 50 was observed with other waders in October 1979 (SS).

395. *Tringa stagnatilis*. Marsh Sandpiper. Common winter visitor. First observed on 31 July 1981 at Hebbal tank (Subramanya, 1981). 272 birds seen at Kalkere tank on 14 January 1989 has been the largest so far observed in Bangalore. Individuals have been observed overstaying in July 1981 (SS).

396. *Tringa nebularia.* Greenshank. Common winter visitor. Usually seen in small numbers. Violent fights between individuals have been observed in January (SS, JH, JNP).

397. *Tringa ochropus.* Green Sandpiper. Common winter visitor. Usually seen in small numbers. Individuals have been observed overstaying in July 1983 (SS).

398. *Tringa glareola.* Wood Sandpiper. Common winter visitor. Gregarious in habits. On 17 March 1983, a mass migratory flight of this species was seen from the paddy fields adjoining Hebbal tank at 9:22 am when about 500 foraging birds took to the air calling. Within the next five minutes several flocks of the species totalling nearly 2000 birds followed suit. The birds flew higher and higher to about 300-400 metres still calling and first headed southwest then in the northwesterly direction (SS). An albino was seen at Ardeshahalli tank on 13th January 1990 (WC).

400. *Tringa terek.* Terek Sandpiper. Only sighting is of two birds seen at Dodda Gubbi tank on 28 January 1986 (Futehally, 1986).

401. *Tringa hypoleucos.* Common Sandpiper. Common winter visitor. Usually seen in small numbers. It is the most terrestrial of all the sandpipers. Futehally (1981) reports having seen birds as early as 30 August (in 1981).

405. *Gallinago nemoricola.* Wood Snipe. Rare winter visitor. The only record of the species is of Betham (of the 101 Grenadiers of the Indian Army). The observed habitat was scrub interspersed with rice fields (Betham, 1912).

406. *Gallinago stenura.* Pintail Snipe. Common winter visitor. According to Phythian-Adams, arrives earlier than Common Sandpiper (Ali 1943). Results of the 1990 waterfowl census reveal that this species is more abundant than the Fantail Snipe in our area.

408. *Gallinago media.* Great Snipe. Rare winter visitor. The only record of this species is of a specimen obtained by Boxwell (of 119 Infantry of the Indian Army). The specimen was a young bird, probably of a late June hatching and was remarkable for the amount of colouring in the outer tail feathers. The bird weighed 210g and was collected from the edge of an irrigation channel close to rice and sugarcane fields (Baker, 1911).

409. *Gallinago gallinago.* Fantail Snipe. Common winter visitor. According to Frend (1927), this species arrives earlier in Bangalore than Pintail Snipe.

410. *Gallinago minima.* Jack Snipe. Uncommon winter visitor. Birds have been counted in low numbers in the January waterfowl censuses

411. *Scolopax rusticola.* Woodcock. One bird seen in IISc on 28 October 1991 (Daniels, 1991)

416. *Calidris minuta.* Little Stint. Common winter visitor. Found in tanks and paddy fields. More than 2500 birds were observed in Hebbal tank on 1 April 1983 when the tank started to go dry (SS).

417. *Calidris temminckii.* Temminck's Stint. Uncommon winter visitor. Shares the habitat with Little Stint.

422. *Calidris testacea.* Curlew-Sandpiper. Rare winter visitor. First sighting is of four birds seen at JP nagar tank (not existing now) on 2 December 1980 (BR). Subsequent sightings have been at Hebbal (November 1983, SS), Manchappanna halli tank (January 1989 and 1990, WC, SS, OCN).

426. *Philomachus pugnax.* Ruff and Reeve. Not too common winter visitor. Occurs in small numbers. 104 birds were observed at Kalkere tank on 14 January 1989. Individuals with white head and neck have been observed.

408. A Boxwell (capt.)
28 Oct 1910 Bangalore
JBNHS 67(1)

CHARADRIIDAE: PHALAROPINAE

428. *Phalaropus lobatus*. Rednecked Phalarope. The only record is of individuals sighted in October and November 1973 in a marshy ground in Jayanagar (Menon 1975).

LARIDAE

454. *Larus brunnicephalus*. Brownheaded Gull. Not too common winter visitor. Found mainly in tanks with open water , but does stray into paddy fields during puddling operations to feed on crabs. Occasionally aggregates into large flocks. 460 birds were seen on 16 April 1983 in Hebbal tank, which was going dry (SS).

455. *Larus ridibundus*. Blackheaded Gull. Rare winter visitor. First seen at Hoskote tank on 20 January 1990.

458. *Chlidonias hybrida*. Whiskered Tern. Uncommon winter visitor.

463. *Sterna aurantia*. Indian River Tern. Not too common resident. Suspected to be breeding in tanks with islands.

470. *Sterna acuticauda*. Blackbellied Tern. The only sightings after the 1977 checklist are a flock of about 26 birds in Hebbal tank which was drying on 11th April 1983 (SS) and at JP nagar tank (now not existing) in 1984 (JNP).

COLUMBIDAE

504. *Treron phoenicoptera*. Green Pigeon. Included in the 1977 checklist. Calls have been heard from Ragihalli State Forest on 29 October 1989 (JNP, MBK). Confirmed sighting of eight individuals feeding on Ficus sp. at Ragihalli state forest on 19 January 1991 (SK, JNP).

517. *Columba livia*. Blue Rock Pigeon. Common breeding resident. A recent phenomenon in Bangalore is of this species nesting throughout the year on ledges of multistoryed buildings. At a multistoryed apartment in Jayanagar, out of nine nesting attempts, four pairs laid eggs, and only one pair was successful. Jungle Mynas stole nest material and House Crows took eggs from unguarded nests. Severe fights were also seen for possession of nesting ledges (MSS).

521. *Columba elphinstonii*. Nilgiri Wood Pigeon. One bird heard and seen at the Bannerghatta National Park on 12 June 1983 (SS).

531. *Streptopelia orientalis*. Rufous Turtle Dove. Included in the 1977 checklist. Subsequently, one bird seen in October 1984 at IISc campus (RJRD).

534. *Streptopelia decoacto*. Indian Ring Dove. Common resident. Partial to dry cultivations. One record of nesting in June.

535. *Streptopelia tranquebarica*. Red Turtle Dove. Included in the 1977 checklist. One bird seen at IISc on 13 November 1988 (RJRD) and another seen near Kalkere tank on 9 January 1991 (JNP, AM, SB).

537. *Streptopelia chinensis*. Spotted Dove. Common breeding resident. Breeds throughout the year. Nests regularly under eaves and over doors. In Lalbagh, a marked reduction in population is seen in April and May, which could be because of local movements (MBK).

541. *Streptopelia senegalensis*. Little Brown Dove. Common breeding resident. Found only in the city outskirts. Was once common at IISc in the late seventies and early eighties (RJRD, SS). Nests observed in March, June, September and October.

PSITTACIDAE

546. *Psittacula eupatria*. Alexandrine Parakeet. One bird seen in flight; needs confirmation (SSr).

550. *Psittacula krameri.* Roseringed Parakeet. Common breeding resident. It has been seen feeding on sunflower, sesamum, safflower, jowar, maize, tur dal, paddy, chillies and guava. While feeding on Guava the birds feed selectively in the upper canopy (Verghese and Prasad 1985). Nesting has been observed during June and November.

551. *Psittacula alexandri.* Redbreasted Parakeet. One bird with a flock of Roseringed Parakeets in a wooded area at IISc on 21 August 1993 (LS).

558. *Psittacula cyanocephala.* Blossomheaded Parakeet. Uncommon. Over the years the species has become more common, and is now seen in Bannerghatta Range Forest, Badamanavarthi State Forest, Muthyala maduvu, GKVK, Hebbal and Roerich estate area on the Kanakapura road. Individuals mixed with flocks of Roseringed Parakeets within the city in Jayanagar (TSS) and Shankarapuram (MBK). One instance of breeding in Ragihalli State Forest in March 1993 (UHK, BAS).

564. *Psittacula columboides.* Bluewinged Parakeet. Straggler ? Only sighting is of a bird feeding with a flock of Roseringed Parakeets on sunflower heads at GKVK on 11th November 1981 (SS).

???. *Melopsittacus undulatus.* Budgerigar. Two sightings of escapees; first in the late sixties of a blue hybrid in a garden at Shankarapuram (MBA, MBK); the second is of a white hybrid which flew into a house in Rajajinagar for a night's stay on 17 April 1982 (SS).

CUCULIDAE

569. *Clamator coromandus.* Redwinged Crested Cuckoo. One bird seen at GKVK on 9 & 10 November 1992 (KPK & SS respectively) and another seen skulking in a bamboo clump at UAS Hebbal on 31 October 1983 (SS).

571. *Clamator jacobinus.* Pied Crested Cuckoo. Not too common breeding resident. Found throughout the year; more frequently seen

558. IISc
551 - escapee

during monsoon. One seen chasing another, possibly courting at Badamanavarthi State Forest on 9 September (SK, SS, MBK, UKP). Two nestlings in the nest of Whiteheaded Babblers has been observed at Whitefield in July 1989 (KVS).

573. *Cuculus varius.* Common Hawk-Cuckoo. Uncommon resident. Often seen feeding on hairy caterpillars. Has been heard calling in our area. An immature was seen feeding on insects in a Tur field in GKVK on 19 November 1989 (JNP, SK, RMA).

576. *Cuculus micropterus.* Indian Cuckoo. Rare. Seen on 24 April 1977 and 16 November 1980, at a garden in Shankarpuram and Lalbagh respectively (MBK). Has been seen feeding on hairy caterpillars (*Dicrisea obliqua*) at GKVK (SS).

578. *Cuculus canorus.* Cuckoo. One bird seen near NAL next to the airport runway on 13 June 1987 (SKV).

582. *Cacomantis sonneratii.* Indian Baybanded Cuckoo. One bird seen at GKVK, picking up a hairy caterpillar (*Dicrisea obliqua*) on 13th November 1985 (SS).

Diacrisia

584. *Cacomantis passerinus.* Indian Plaintive Cuckoo. Uncommon resident. Sightings are mostly from January to April. A pair duetting from a Lantana bush on 20 April 1990 at Muthyala maduvu (JNP, MSJ, GSA).

588. *Surniculus lugubris.* Drongo-Cuckoo. Rare. First sighting is of an individual observed in the city outskirts of Mahalakshmi Layout on 10 th October 1978 (JG). Three subsequent sightings, from Bangalore Palace Grounds in January, at Lalbagh in April and at Dodda Gubbi in January (JG, SS, SB).

590. *Eudynamys scolopacea.* Koel. Common breeding resident. Adults have been seen being chased by crows in March and fledglings have been observed being fed by crows during July and September (MBK). Feeds on fruits of *Santalum album* (SS), *Polyalthia pendula* (RL),

576. Seen hunting moths at 9.00 PM near street lamp. Allowing close inspection. IISc. 26 Dec '93

Lantana (SS), *Muntingia calabura* (MBK). Larger seeds of *Santalum* are regurgitated while smaller ones are defecated (SS). Partial albinism has been noticed in and around IISc (RJRD; Shyamal, 1990). Judging by the calls heard, there has been considerable decrease in numbers during the last two decades (JG). Subrahmanyam and Krishnamoorthy (1981) noted that the pitch of the calls ranges from 976 to 1818 Hz, and that the pitch does not increase after the ninth note. They also noted that the number of notes are fewer in the evenings compared to mornings, probably because of the physiological status (tiredness) of the bird.

595. *Rhopodytes viridirostris.* Small Greenbilled Malkoha. Uncommon breeding resident. Two nest sightings in June (SK, JNP). Has been observed to have a ventriloquistic call and has been heard calling after April showers (SS, MBK).

598. *Taccocua leschenaultii.* Sirkeer Cuckoo. Uncommon breeding resident. Seen in woodland and scrub habitats of Bannerghatta, Badamanavarthi and VM temple areas.

602. *Centropus sinensis.* Crow-Pheasant. Common breeding resident. Found in scrub jungle, hedge bordered cultivations, ravines with bamboo and parks.

STRIGIDAE: TYTONINAE

606. *Tyto alba.* Barn Owl. Uncommon breeding resident. Found in scrub jungle with tall trees, wooded areas, campuses, old extensions with large trees and old buildings. Young at and near nests have been observed in January. An individual with tail in moult has been seen in June (MBK). Unusual day roosts have been a plywood house and a parked van (George, 1976). Human activity did not disturb an individual day roosting on a ledge of a busy college corridor in GKVK in March 1990 (SS). A pair has been observed on the Public Utility building (OCN).

STRIGIDAE: STRIGINAE

617. *Otus scops.* Scops Owl. Two instances of calls heard at Ragihalli on 29 October 1989 (JNP, MBK) and at Muthyala maduvu on the night of 14 April 90 (JNP, TSS).

623. *Otus bakkamoena.* Collared Scops Owl. Uncommon. Found in shady gardens like that preferred by Magpie-Robins. Has been seen perched on the lower branches of thick canopied trees. Pairs appear to be parochial almost throughout the year. The pairs resort to duetting, the significance of which is not known. Birds have been seen roosting as low as a metre from the ground (MBK).

627. *Bubo bubo.* Great Horned Owl. Uncommon breeding resident. Found in rocky scrub with trees. Breeds from November to March; eggs have been seen from November to January (TNAP, TAN). Nesting habits reported by Perumal (1985a). Gerbils (*Tatera indica*), Mole-rats (*Bandicoota benghalensis*), Bandicoots (*Bandicota indica*), Indian Bush Rat (*Golunda elliotti*) and Field Mice (*Mus booduga*) were fed to the young. The young started regurgitating pellets after they were three weeks old (Perumal, 1985a).

631. *Bubo zeylonensis.* Brown Fish Owl. Rare. Was observed off Rajajinagar in 1977 (SS, AKC). Occurs in Muthyala maduvu, Anekal (TSS, JNP). All sightings have been near flowing water with shoreline tree-belt habitats.

637. *Glaucidium radiatum.* Barred Jungle Owlet. Rare breeding resident. Sightings are as follows: an individual seen on 17 July 1979 in the city outskirts off Rajajinagar (SS). Four birds, possibly a family party seen at Badamanavarthi State Forest on 9 September 1990 (UHK, SK, MBK). A nest at Doresanipalya State Forest on 7 May 1985 and another in the same area on 11 February 1986 (TAN).

623. Nesting in June 93. 3 chicks in hollow of Spathodea c. (IISc). Again in March 94. 2 nestlings seen

652. ***Athene brama.*** **Spotted Owlet.** Common breeding resident. Roosts (in daytime) on trees and buildings, both old and new. Can be seen hawking under street lights in suburbs. The most common of our owls. Breeds in January and February.

657. ***Strix ocellata.*** **Mottled Wood Owl.** Uncommon breeding resident. Partial to wooded areas with dense canopied tall trees like Shorea talura. Perumal (1985b) studied the breeding habits of the species: The large repertoire of calls of the breeding pair included duetting and ones like the bleating of a goat. The pair preyed mostly on lizards. Nine out of ten birds photographed bringing food to the nest had Garden Lizards (*Calotes versicolor*) and one a bat. Other prey included small rodents. A fledgeling has been seen at Lalbagh in April 1991 (SSr).

CAPRIMULGIDAE

671. ***Caprimulgus indicus.*** **Indian Jungle Nightjar.** One male flushed at Badamanavarthi State Forest on 19 August 1990 (SS, SK, JNP)

674. ***Caprimulgus mahrattensis.*** **Sykes's Nightjar.** One sighting from the campus of the Indian Plywood Industries Research Institute on Tumkur Road on 17 February 1977 (JG). The bird gave out a low soft chuckle when flushed from the base of a bamboo clump.

675. ***Caprimulgus macrurus.*** **Longtailed Nightjar.** Two sightings: the first in VMTA on 5 September 1987 (JNP, TSS, SK, UHK, JH) and a male on 19 August 1990 at Badamanavarthi State Forest (SS, SK, JNP).

680. ***Caprimulgus asiaticus.*** **Common Indian Nightjar.** Not too common breeding resident. Has been seen breeding in January, February and from May to August.

682. ***Caprimulgus affinis.*** **Franklin's (Allied) Nightjar.** Worth's (1953) report of a bird calling from the branch of a tree in the Bangalore Golf Course in March 1952 is the first record for Bangalore. Heard calling in Mahalakshmi Layout in 1970s before buildings were put up (JG). One

bird flushed from the ground in open laterite area with widely scattered grass clumps and bushes in GKVK on 13th July 1982 (SS).

APODIDAE: APODINAE

691. ***Chaetura gigantea.*** **Brownthroated Spinetail Swift.** Reported to occur east to Bangalore in the Peninsula (Ripley 1982).

694. ***Apus melba.*** **Alpine Swift.** Rare. Sighted at Bannerghatta National Park, IISc, Budigere ammanni, Dasarahalli, Doddaballapur and Hoskote.

700. ***Apus pacificus.*** **Large Whiterumped Swift.** A single individual seen among a flock of House Swifts 'balling' in the sky over Jayanagar on 26 January 1985 (JNP).

703. ***Apus affinis.*** **House Swift.** Common breeding resident. Nest both colonially and individually. Most of the single nests have been found associated with corrugated asbestos cement sheet roofing 4 to 15 m above the ground. Breeding peaks in July.

707. ***Cypsiurus parvus.*** **Palm Swift.** Uncommon resident. A nest seen in Rajajinagar in 1981 on the underside of an ornamental fan palm (SS).

APODIDAE: HEMIPROCNINAE

709. ***Hemiprocne longipennis.*** **Crested Tree Swift.** Rare; first seen at Valley School (19 March 1988, JNP, TSS); later at VMTA, JB campus, Muthyala maduvu, near Shivanahalli of the Bannerghatta Range Forest.

ALCEDINIDAE

719. ***Ceryle rudis.*** **Lesser Pied Kingfisher.** Common breeding resident. Prefers tanks with clear water and unlined village irrigation wells. Breeds in February, April and from August to November.

707 - one pair in front of VMTA

724. ***Alcedo atthis.*** **Small Blue Kingfisher.** Common breeding resident. Found in and around tanks, paddy fields and streams, including those with sewage. Has been seen breeding in July.

730. ***Pelargopsis capensis.*** **Storkbilled Kingfisher.** Two sightings of single individuals in Jayanagar near the Banashankari temple on 20 February 1984 and in January 1985, the latter on a TV antenna (JNP).

736. ***Halcyon smyrnensis.*** **Whitebreasted Kingfisher.** Common breeding resident. In paddy fields feeds largely on young crabs and mice. On one occasion a Streaked Fantail Warbler which just fledged out of its nest and fell into shallow water was grabbed and swallowed whole by the Kingfisher (SS). Other prey observed are Brahminy Skink (*Mabuya carinata*), Snake Skink (*Riopa punctata*), Garden Lizard (*Calotes*), Peninsular Rock Agama (*Psammophilus dorsalis*) (EHR, AKR, AS, NDR). Breeds from February to May.

739. ***Halcyon pileata.*** **Blackcapped Kingfisher.** One seen at a quarry pool in IISc on 3 November 1991 (RJRD, 1991)

MEROPIDAE

744. ***Merops leschenaulti.*** **Chesnutheaded Bee-eater.** First observed on 1 March 1980 in Lalbagh (MBK). A flock of over twenty birds seen at Pipeline Road, Banashankari in February (JNP, SK). Seen at Muthyala maduvu in April (eight birds, JNP, TSS), and May (four birds) (JNP, GSA, MSJ).

748. ***Merops philippinus.*** **Bluetailed Bee-eater.** Included in the 1977 checklist; A pair at a garden in Shankarapuram on 5 November and 10 December 1975 (MBK). No recent sightings.

750. ***Merops orientalis.*** **Small Green Bee-eater.** Common breeding resident. The species has also been seen to make use of bunds separating plots in dryland cultivations for breeding (SS). Breeds from January to May, rarely till July with a marked peak during April and May.

Verghese and Chakravarthy (1977) observed that the roosting population of the species was at its lowest in April and was at its highest in September. The birds roosted on *Eucalyptus*, *Melia*, *Cassia*, *Pongamia glabra* and *Syzygium cuminii*.

753. ***Nyctyornis athertoni.*** **Bluebearded Bee-eater.** Species described in 1830 by Jardine and Selby. Type area restricted to Bangalore by Kinnear (1925). Three individuals seen at Muthyala maduvu in a deciduous patch (Karthikeyan & Prasad, 1993).

CORACIIDAE

756. ***Coracias benghalensis.*** **Indian Roller.** Common breeding resident. Breeds from February to May.

UPUPIDAE

765. ***Upupa epops.*** **Hoopoe.** Not too common breeding resident. Breeds from January to June.

BUCEROTIDAE

767. ***Tockus birostris.*** **Grey Hornbill.** Included in the 1977 checklist. Two subsequent sightings, both from north Bangalore: at Bettadahulsur on Bellary road on 14 February 1989 (KPK) and at Hesserghatta on 24 January 1993 (LS).

CAPITONIDAE

781. ***Megalaima zeylanica.*** **Large Green Barbet.** Included in the 1977 checklist. Ghorpade et al (1974, see also Hbk 4:151) mention that the species is very common in Bangalore city. Other observers find that the species is absent in Bangalore at least for over two decades (see for eg. Prasad, 1991).

781. BNP (26 June 1994) NRS

785. ***Megalaima viridis.*** ***Small Green Barbet.*** Common breeding resident. Along with the Crimsonbreasted Barbet suffers nest site loss due to removal of dead wood for fuel. Breeds from December to August with a peak in April.

792. ***Megalaima haemacephala.*** **Crimsonbreasted Barbet.** Common breeding resident. Nests have been observed in all the months except January, June, October and November, with a peak during April.

PICIDAE

804. ***Micropternus brachyurus.*** **Rufous Woodpecker.** Rare breeding resident. All sightings at Bannerghatta Range Forest: first on 6 August 1989 (SK,JNP). Subsequently in August 1988, January 1991 (SK, JNP). A bird observed coming out of a *Crematogaster* ant nest on 5 April 1991 (GPS, SCR, RR).

808. ***Picus myrmecophoneus.*** ***Little Scalybellied Green Woodpecker.*** A mating pair observed at Karadikal State Forest on 24 March 1991 (Prasad & Madhusudhan, 1993).

820. ***Dinopium benghalense.*** **Lesser Goldenbacked Woodpecker.** Not too common breeding resident. Found in tree lines about cultivations, in Mango orchards and other lightly wooded areas. A nest has been observed in March.

847. ***Picoides mahrattensis.*** **Yellowfronted Pied Woodpecker.** Included in the 1977 checklist. Two recent sightings both at Muthyala maduvu on 15 April 1990 (JNP, TSS) and on 19 January 1991 (SK, JNP).

852. ***Picoides nanus.*** **Pygmy Woodpecker.** Two sighting of a bird each, in the Herbivore Safari of Bannerghatta National Park on 9 July 1988 (SK) and on 19 January 1991 at Ragihalli State Forest (SK, JNP; Karthikeyan, 1992).

Picus chlorolophus

858. ***Chrysocolaptes festivus.*** **Blackbacked Woodpecker.** Uncommon resident; found on large trees preferably with slightly open canopies. Nest holes of this species have been found in coconut tree trunks. Parakeets have been seen inspecting the nest holes in use (SSr, SRH).

PITTIDAE

867. ***Pitta brachyura.*** **Indian Pitta.** Not too common winter visitor. Frequents dense shrubbery with leaf litter in gardens, parks, bamboo covered ravines, scrub, etc. Starts arriving by the first week of September and stays on till the end of May. Exhausted birds die or fall prey to cats, Jungle Crows and Shikras (SS, MBK, EHR, UHK; Daniels, 1986). They sometimes come into houses. Locally common on passage at IISc (RJRD). An individual killed by a cat in Shankarapuram had Ragi seeds in its gut, which was scattered on the ground for it when it was living (MBK).

ALAUDIDAE

872. ***Mirafra javanica.*** **Singing Bush Lark.** Common breeding resident. Nests have been observed in March and May.

874. ***Mirafra assamica.*** **Rufouswinged Bush Lark.** Three to four birds seen at VMTA (VS). One bird heard at Thippagondana halli on 10 October 1989 (VS).

877. ***Mirafra erythroptera.*** **Redwinged Bush Lark.** Included in 1977 checklist. No recent sightings.

NOTE: Genus *Mirafra*, Bush Larks. According to Ali (1943), *Mirafra assamica* is supposed to be more common than *M. javanica*. Since field identification is difficult, specific identity of the species of the genus have to be ascertained from birds in the hand.

872. Credits?

858. GKVK 7.oct'93, Kodigehalli 15 Jan 91

878. ***Eremopterix grisea.*** **Ashycrowned Finch-Lark.** Not too common breeding resident. This species is being seen less frequently now, than a decade back. Breeding has been observed from February to April.

883. ***Ammomanes phoenicurus.*** **Rufoustailed Finch-Lark.** Uncommon resident. Found in dry open areas in the city outskirts and on rocky hillocks.

908. ***Alauda gulgula.*** **Eastern Skylark.** Common breeding resident. Seen on meadows around tanks all through the year and in dry paddy fields. Breeding season extends from March to June with a peak in April.

HIRUNDINIDAE

910. ***Riparia riparia.*** **Collared Sand Martin.** A vagrant in a flock of Common Swallows at IISc in September 1985 (RJRD).

914. ***Hirundo concolor.*** **Dusky Crag Martin.** Uncommon breeding resident. More frequently seen near rocky hillocks and tanks with high bunds. Has been seen breeding near New Obichudanahalli tank, and in the Ramaiah College of Engineering (MD).

917. ***Hirundo rustica.*** **Common (Barn) Swallow.** Common winter visitor. Arrives by early September and stays on till the end of April. Stray sightings of early arrivals exist for third week of June (overstaying ?) and August (1984). A huge flock of over 2000 birds has been seen feeding over an aphid infested cabbage field in February 1990 at Hoskote (SS).

921. ***Hirundo smithii.*** **Wiretailed Swallow.** Uncommon breeding resident. Restricted to wet areas. Adult feeding young at Kumbalgod on 15 February 1970 (JG) and one nest with one young at Karadikal State Forest on 24 March 1991 (AM, JNP) are the only sightings of breeding in our area. An individual each, in moult, seen on 26 May 1980 (MBK) and on 24 March 1991 (JNP, AM).

914. Nesting on Bannerghatta hill under boulder along with red rumped swallow 20 Jul 91

922. ***Hirundo fluvicola.*** **Indian Cliff Swallow.** Uncommon breeding resident. Two breeding colonies known: one under an old bridge along Tumkur road (JG) and another on Old Madras road.

927. ***Hirundo daurica.*** **Redrumped (Striated) Swallow.** Common breeding resident. Breeds from March to September, with a peak in September. It has been seen collecting wet mud from mud puddles, puddled paddy fields and tank edges for nest building.

LANIIDAE

933. ***Lanius excubitor.*** **Grey Shrike.** Rare. The species has become rare over the past decade (SS; also see Ghorpade, 1971).

940. ***Lanius vittatus.*** **Baybacked Shrike.** Rare. The species has become rare over the past decade (SS).

946. ***Lanius schach.*** **Rufousbacked Shrike.** Uncommon breeding resident. Over the past decade, has come down in its numbers. Has been seen breeding in July and August.

949. ***Lanius cristatus.*** **Brown Shrike.** Common winter visitor. The most common and most widespread of our shrikes. Found from September to April. A few individuals have been seen as late as the third week of May. It is extremely vociferous on arrival and becomes silent towards the end of its stay. An individual was seen arriving at the same perch exactly at 6:15 pm in September-October 1981 on ten consecutive days in Rajajinagar (SS).

ORIOLIDAE

953. ***Oriolus oriolus.*** **Golden Oriole.** Not too common winter visitor. Usually arrives in November and stays till April, but birds have been seen arriving as early as September and departing as late as May (MBK). A pair seen courting in December (SS).

959. *Oriolus xanthornus.* Blackheaded Oriole. Rare. Seen at Lalbagh in different years (MBK, SK), and once each in Bannerghatta Valley (SS) and GKVK (KPK, HBP) in June.

DICRURIDAE

963. *Dicrurus adsimilis.* Black Drongo. Common breeding resident.

965. *Dicrurus leucophaeus.* Grey Drongo. Common winter visitor. Starts arriving in October and stays on till April. Peak densities are reached in December (MBK). Tail moult has been observed in January (SK, JNP). Birds have been observed capturing foraging and swarming Rock Bees (*Apis dorsata*) (SS).

967. *Dicrurus caerulescens.* Whitebellied Drongo. Uncommon. This species could be becoming rarer in Bangalore.

973. *Dicrurus hottentottus.* Haircrested Drongo. Uncommon. First sighting of a bird being chased by a Jungle Crow off Mahalakshmi Layout on 15 February 1982 (JG). Populations are increasing in recent years and seen mainly when *Erythrina* and *Eucalyptus* are in bloom.

ARTAMIDAE

982. *Artamus fuscus.* Ashy Swallow-Shrike. A pair at Ragihalli State Forest on 17 January 1991 (SK, JNP); Several birds in Areca plantations near Hesserghatta lake (15 September 1991) (LS).

STURNIDAE

987. *Sturnus malabaricus malabaricus.* Greyheaded Myna. Uncommon resident subject to seasonal(?) movements. Flocks have been seen from September till the blooming of *Erythrina* is over (February). Flocks have also been seen feeding on nectar of *Eucalyptus citriodora*.

988. *Sturnus malabaricus blythii.* Whiteheaded Myna. One individual seen feeding with Indian Mynas on Lantana fruits at IISc on 30 August 1979 (AKC, AV, SS).

994. *Sturnus pagodarum.* Blackheaded Myna. Uncommon breeding resident subject to seasonal movements. Breeds from December to July with the peak in April, when they are more commonly seen in the city. Adults have been observed bringing figs, Mango blossoms, and hairy and green caterpillars to nestlings (SK, JNP). Nests in holes in buildings and tree hollows. Have also been observed nesting in the open ends of telegraph poles (SS, SK, JNP).

996. *Sturnus roseus.* Rosy Pastor. Common winter visitor. Flocks start arriving by February often coinciding with the fruiting of Ficus and stay till mid April. Roosts in thousands in the company of crows and mynas.

997. *Sturnus vulgaris.* Starling. Uncommon winter visitor. Usually seen in small numbers. A flight of over 20,000 birds was seen in Rajajinagar on three consecutive mornings from 1 April 1982 between 6:08 - 6:12 am flying in a north-westerly direction (SS). The species was first recorded on 24 October 1965 (Ghorpade, 1974).

1006. *Acridotheres tristis.* Indian Myna. Abundant breeding resident. Breeds from March to July with a peak in April and May. This species has been observed feeding on the larvae of Heliothes armigera on infested Sunflower heads, on Peninsular Rock Agama (*Psammophilus dorsalis*), field mice (*Mus*), *Lantana* fruits (SS), and *Spathodea* nectar (JNP, MBK). Nests in holes in buildings and tree hollows. Have also been observed nesting in the hollows of vertical pipes like ventilation shafts (MBK), and open ends of telegraph poles (SS, SK, JNP).

1010. *Acridotheres fuscus.* Jungle Myna. Abundant breeding resident, subject to local movements, with suspected breeding immigration resulting in population increase from April to June (MBK). Breeds from January to August. This species has been seen to occupy abandoned

nest holes of Hoopoes in the same season. It is the most common myna in paddy fields and abundant during ploughing, puddling and harvesting (SS). *Spathodea companulata* trees in bloom attract these mynas which feed on the nectar (MBK, JNP). Nests in holes in buildings and tree hollows. Have also been observed nesting in the hollows of vertical pipes like ventilation shafts (MBK), and open ends of telegraph poles (SS, SK, JNP).

CORVIDAE

1034. *Dendrocitta vagabunda.* Indian Tree Pie. Not too common breeding resident. Nests have been observed in June and July.

1036. *Dendrocitta leucogastra.* Whitebellied Tree Pie. Distributional range in the Peninsula east to Bangalore (Ripley 1982).

1049. *Corvus splendens.* House Crow. Abundant breeding resident. Feeds on crabs, mole crickets, earthworms and ground spiders exposed during ploughing in paddy fields (SS). Seen chasing freshly fledged House Sparrows (JNP) and Bayas, feeding on a live Indian Myna fledgeling and taking Tree Pie nestlings (SS). The species has been seen hiding half eaten remains of a Blackheaded Munia in a crack in a dry paddy field (SS).

1057. *Corvus macrorhynchos.* Jungle Crow. Abundant breeding resident. Worth (1953) considered the species to be common in Bangalore and observed the species frequenting refuse heaps, bazaars and compounds. This species is ecologically the most dominant avian predator in our urban area (MBK). Have been observed waiting at the entrance holes of Coppersmith nests, pulling out nestlings and adults which put-out their heads and feeding on them (MBK, MBA). Indian Pittas and immature mynas are chased and captured (MBK) as are fledged sparrows (JNP). Squirrels (*Funambulus palmarum*), are regularly preyed upon by the species. Interestingly such predatory behaviour of this species has been seen to be more prevalent in the mornings (MBK).

Has been seen disturbing Short-nosed Fruit Bats (*Cynopterus sphinx*) from their roosts, and capturing and killing them (SS, JNP). Filamentous algae is also eaten and dry food being wetted before being eaten has also been observed (MBK). The species has been seen hiding food (Krishna, 1976).

CAMPEPHAGIDAE

1070. *Tephrodornis pondicerianus.* Common Wood Shrike. Uncommon breeding resident. Frequently encountered in scrub areas with trees. Nests have been observed in January and March.

1072. *Coracina novaehollandiae.* Large Cuckoo-shrike. Uncommon resident. Frequents scrub areas with widely spaced tall trees like *Eucalyptus*. The birds restrict themselves to the top of the trees and often call in flight.

1077. *Coracina melaschistos.* Smaller Grey Cuckoo-shrike. Rare. First sighting on 8 April 1981 off Mahalakshmi Layout on an Agave in a barren area (JG). Subsequent sightings have been in gullies overgrown with bamboo (SS).

1079. *Coracina melanoptera.* Blackheaded Cuckoo-shrike. Not too common breeding resident. Frequents scrub with trees, parks, and cultivations bordered with bushes and trees.

1081. *Pericrocotus flammeus.* Scarlet (Orange) Minivet. One female observed at the Bannerghatta National Park in July 1981 (MBK). No recent sightings.

1094. *Pericrocotus cinnamomeus.* Small Minivet. Not too common breeding resident. Found in woodlands, parks, Mango orchards, and scrub with good tree growth. Breeds from April to August with a gap in June.

1057.5 Carrying away nest of Purple sunbird with eggs/chick(s).

IRENIDAE

1100. *Aegithina tiphia.* Common Iora. Common breeding resident found in scrub, gardens and woodlands. Has been seen breeding from April to August.

1104. *Chloropsis aurifrons.* Goldfronted Chloropsis. Rare. Included in 1977 checklist. Two pairs seen at Bannerghatta Range Forest on 18 January 1991 one of which was mimicking the calls of Rufous Woodpecker (JNP, SK).

1107. *Chloropsis cochinchinensis.* Goldmantled Chloropsis. Uncommon resident. Partial to wooded areas. Has been seen feeding on the fruits of *Mallotus philippensis* at Kalkere State Forest on 11 Aug 1990 (SS).

PYCNONOTIDAE

1120. *Pycnonotus jocosus.* Redwhiskered Bulbul. Common breeding resident. The most common bulbul in wooded areas. This species has gradually replaced the Redvented Bulbul over the past one and a half decades in Lalbagh (MBK). The first report for Bangalore is of four specimens collected by Walton between 15 & 20 January 1899 (Ali 1942). Has been seen taking Common Mormon caterpillars (*Papilio polytes*), and fruits of *Cipadessa baccifera*, *Securinega leucopyrus* and *Erythroxylon monogynum* (JNP). Breeds from March to September.

1123. *Pycnonotus leucogenys.* Whitecheeked Bulbul. Seen in Fifth block Jayanagar. The first sighting was of two individuals seen feeding on the berries of Singapore Cherry on 30 May 1985, and subsequently on 5 August, 7 September and 10 November of the same year (TSS).

1128. *Pycnonotus cafer.* Redvented Bulbul. Common breeding resident. Along with the Redwhiskered, is the most common bulbul. There are differences in habitat preferences between this and the Redwhiskered species. The latter is more common in wooded areas and

1104. 14. Nov 90 – 11Sc
25 Apr 93 – 11Sc pair
9 Aug 92 – Kalkere (with MBK)

parks while the Redvented is more common in the city and scrub habitats. Breeds from March to September. The food preferences of this species are similar to Redwhiskered Bulbul's; in addition takes insects from rocky boulders (JNP, SK).

1135. *Pycnonotus xantholaemus.* Yellowthroated Bulbul. Rare breeding resident. Included in the 1977 checklist. Three individuals were collected on 29 December 1939 at Thondebavi, Doddaballapur by Salim Ali during his Mysore survey (Ali 1942). Recently, three pairs were seen at Manakalbetta near Shivanahalli, Bannerghatta range, on 14 October 1990 (SS, JNP) and subsequently at ten other sites both in and out of Bangalore. The species is known to be restricted to boulder strewn rocky hillocks with trees and open scrub.

1138. *Pycnonotus luteolus.* Whitebrowed Bulbul. Common breeding resident. The species is partial to scrub habitats. Probably more common than it appears because of its shy and secretive habits. Has been seen feeding on the ripe fruits of *Erythroxylon monogynum* during July and August. The breeding season extends from March to July.

MUSCICAPIDAE: TIMALIINAE

1154. *Pellorneum ruficeps.* Spotted Babbler. Uncommon. Seen in Bannerghatta National Park (SK), and in other scrub forests along Kanakapura road (JH, NRS) in undulating terrain, including Badamanavarthi State Forest (JNP).

1174. *Pomatorhinus horsfieldii.* Slatyheaded Scimitar Babbler. Rare resident. More commonly heard than seen. Heard from the Ragihalli Range Forest, Bannerghatta (MBK, SK), and Muthyala maduvu in April 1990 (JNP, TSS, GSA). Seen at Herbivore Safari of Bannerghatta National Park (JNP).

1221. *Dumetia hyperythra.* Whitethroated Babbler. Uncommon resident. Found in scrub. Fledgelings which still could not feed on their

1221. Nesting just above ground BNP – 20-Jul 91 (3 chicks)

own have been seen with parents in August 1990. Nest with eggs has been observed in October.

★ **1231. *Chrysomma sinense.* Yelloweyed Babbler.** Uncommon breeding resident. Once common in the city outskirts in the seventies in scrub bordered dryland cultivations. Now seen only in the scrubs south of Bangalore (Bannerghatta and Kanakapura road). Nesting material seen being carried by a bird at Thippagondanahalli (VS) and in Ragihalli State Forest (JNP, SS) in October 1989 and 1990 respectively.

1254. *Turdoides caudatus.* Common Babbler. Rare resident. Once common in the city outskirts in the seventies in scrub bordered dryland cultivations.

1258. *Turdoides malcolmi.* Large Grey Babbler. Rare. A few sightings so far in the city outskirts at Nagavara, GKVK, JB, Kalkere and Badamanavarthi State Forest (SS, TSS, UHK, JNP, MBK). According to KK Neelakantan, the species was common in IISc campus in the early sixties (SS).

1263. *Turdoides striatus.* Jungle Babbler. Rare. Small flocks have been seen on less than ten occasions in Bannerghatta range and Kanakapura ranges.

★ **1267. *Turdoides affinis.* Whiteheaded Babbler.** Common breeding resident. One of the most common of our babblers, found from park like woodlands to scrub. Nests have been observed from April to August and in November and December. This species seems to tolerate human presence much better than other babblers and strays into residential gardens, and campuses. Nest in use on a roadside *Jacaranda mimosaefolia* in Jayanagar in August 1985 was three metres from the ground (JNP).

1231. Food carrying. Bannerghatta NP 20 Jul 91
1267. Nesting Feb 91 - Acacia auriculiformis 12'
June 90 - 1½ m ht in Acacia leucophlea] IISc
April 92

MUSCICAPIDAE: MUSCICAPINAE

1407. *Muscicapa latirostris.* Brown Flycatcher. Common winter visitor. Usually starts arriving in October and stays on till April. Some individuals can be seen overstaying (MBK). Sightings in May, July and September exist.

1411-1412. *Muscicapa parva* . Redbreasted Flycatcher. Not too common winter visitor. Both the races (*albicilla* and *parva*) occur in our area. An individual observed daily from December 1986 to February 1987 allowed approach to within a metre and accepted dead cockroaches! (TSS).

1421. *Muscicapa superciliaris.* Whitebrowed Blue Flycatcher. One individual seen at MN Krishna Rao park, Basavanagudi on 2 January 1988 (Hemanth, 1988) and another in Badamanavarthi State Forest on 25 October 1992 (Karthikeyan *et al*, 1993).

1427. *Muscicapa nigrorufa.* Black and Orange Flycatcher. One bird seen close to Yediur tank in 1986 (RMA) and another foraging in a Mulberry tree in Jeevan Beema Nagar on 3 Febaruary 1990 (SB).

1440. *Muscicapa rubeculoides.* Bluethroated Flycatcher. Rare straggler. Three sightings of single birds. First observed on 10 April 1979 in a bamboo clump in Rajajinagar (SS, AKC, AV) and others observed on 23 March and 6 April 1986 in a garden in Shankarapuram (MBK).

1442. *Muscicapa tickelliae.* Tickell's Blue Flycatcher. Uncommon ★ breeding resident. Frequents shady and moist wooded areas. One nest observed in May.

1445. *Muscicapa thalassina.* Verditer Flycatcher. Rare winter visitor. Less than ten sightings from wooded areas.

1446. *Muscicapa albicaudata.* Nilgiri Flycatcher. Rare. Less than five sightings from wooded areas.

1442. Chicks + Ad. seen in Bannerghatta (11.7.93) with UHK

1448. *Culicicapa ceylonensis.* Greyheaded Flycatcher. Included in the 1977 checklist; no recent records.

MUSCICAPIDAE: RHIPIDURINAE

1452. *Rhipidura aureola.* Whitebrowed Fantail Flycatcher. Rare. Only two sightings subsequent to the 1977 checklist. First on 2 December 1984 at Bannerghatta National Park (SS), and the second on 9 September 1990 at Badamanavarthi State Forest (JNP, SK, UHK).

1458. *Rhipidura albicollis.* Whitethroated Fantail Flycatcher. Uncommon breeding resident. Restricted to moist scrub with trees and wooded areas.

MUSCICAPIDAE: MONARCHINAE

1461. *Terpsiphone paradisi.* Paradise Flycatcher. Not too common winter visitor and breeding resident. Affects gardens with large trees with ample sub-canopy space.

1465. *Monarcha azurea.* Blacknaped Flycatcher. Uncommon. Winter visitor. Seen in shady gardens and Mango orchards. First sighting was of a female on 8 November 1980 in a garden in Shankarapuram (MBK).

MUSCICAPIDAE: SYLVIINAE

1498. *Cisticola juncidis.* Streaked Fantail Warbler. Common breeding resident. Has a range of habitats: Water Hyacinth patches, tanks overgrown with alligator weed (*Alternanthera phyllaxeroides*), paddy fields, reed beds, wet *Parthenium* patches, grasslands and millet cultivations. Breeds during monsoons, but from April to December in paddy fields where nest densities are high (SS). In paddy fields feeds its young with a variety of spiders, grasshoppers (*Oxya velox*) and larvae of rice skipper (*Pelopedis mathias*) (Subramanya, 1988).

Pelopidas/Parnara

1503. *Prinia hodgsonii.* Franklin's Wren- (Longtail) Warbler. Not too common breeding resident. Observed in wooded habitats in Bannerghatta range, VM Temple area and Muthyala maduvu. Heard singing in the monsoon months.

1511. *Prinia subflava.* Plain Wren- (Longtail) Warbler. Common breeding resident. Locally common in and around dryland cultivations, paddy fields, Parthenium patches, etc. Breeds abundantly from June to November (Subramanya 1988) in Ragi, Sorghum (in the early stages of growth), Avare (*Dolichos lablab*), Sesamum, and Redgram (SS). Breeds in lesser numbers in paddy fields from April to February, depending mainly on the availability of suitable nesting substrate (SS). An unusual instance of a larger than normal nest with nine eggs has been observed in a Ragi field at GKVK on 23 October 1987 (SS). A wasp (*Scalifron maderaspatanum*) built its nest in a fresh nest of this warbler which resulted in the bird deserting it (SS). Nearly 80% of the nestling food of the species nesting in Ragi cultivation consisted of insect pests and 64% of it was a semilooper *Trichopulsia ni* (Verghese *et al*, 1982).

Trichoplusia

1517. *Prinia socialis.* Ashy Wren- (Longtail) Warbler. Common breeding resident. Frequents parks, gardens, and cultivations with broadleaved crops. Has been seen breeding from May to October. In sunflower fields it has been seen feeding on *Heliothis armigera* (SS), a pest on sunflower heads. An instance of a pair building and abandoning a nest was seen after unusual rains on 15 February 1985 (SK, JNP). Once four eggs of this species were seen in a freshly built nest of a Plain Wren Warbler in a Ragi field in October 1987, which were abandoned later (SS). Seems to prefer *Barleria* for nesting where available (SK).

1521. *Prinia sylvatica.* Jungle Wren- (Longtail) Warbler. Common breeding resident. The most common *Prinia* in scrub. Nests have been observed in July and September. This species perhaps has the loudest call amongst all the longtail warblers in Bangalore (SS).

Scelifron

1535. *Orthotomus sutorius.* Tailor Bird. Abundant breeding resident. Found in gardens, parks, scrub, wooded areas and hedges around cultivation. Population of the species shows a bimodal increase in May and September (MBK). This apparently corresponds with the breeding habits. Nests have been observed from May to September.

1549. *Acrocephalus aedon.* Thickbilled Warbler. Rare winter visitor. Baker and Inglis (1930) mention a specimen collected in Bangalore. Recent sightings are of a bird each on an *Agave* bordering dryland off Mahalakshmi Layout on 1 April 1981 (JG), in a Bulrush close to Hoskote tank on 21 January 1990 (VS) and near Alur tank off Tumkur road on 23 January 1992 (SB, JH, MSJ).

1550. *Acrocephalus stentoreus.* Indian Great Reed Warbler. Uncommon breeding resident. A nest has been observed in July (TAN).

1556. *Acrocephalus dumetorum.* Blyth's Reed Warbler. Abundant winter visitor. Arrives in October and departs at the end of April. Frequents gardens and wooded areas. Keeps to the shrubbery, but towards the end of the season, forages more frequently in trees (MBK). Has a soft subsong, and has once been heard warbling before departure (MBK).

1557. *Acrocephalus agricola.* Paddyfield Warbler. Uncommon winter visitor. Locally common in tall varieties of paddy.

1562. *Hippolais caligata.* Booted Tree Warbler. Uncommmon winter visitor. Affects tree savanna type habitats especially with good growth of thorny trees like *Acacia leucophloea* (MBK).

1565. *Sylvia hortensis.* Orphean Warbler. Rare. Individuals have been sighted from September to March at IISc, Badamanavarthi State Forest and Bannerghatta Range Forest.

1567. *Sylvia curruca.* Lesser Whitethroat. Seen in IISc in winter in recent years (LS).

1579. *Phylloscopus affinis.* Tickell's Leaf Warbler. Included in the 1977 checklist. After this, first seen at IISc on 8 November 1985 and occasionally in subsequent years (RJRD).

1601. *Phylloscopus magnirostris.* Largebilled Leaf Warbler. One individual stayed in a garden in Shankarapuram from 2 to 7 October 1983. It was calling and foraging on Jack and Mango trees, and was once seen catching and eating a jumping spider (MBK).

1605. *Phylloscopus trochiloides.* Greenish Leaf Warbler. Abundant winter visitor. Usually arrives in the third week of September and stays on till the end of April. However, this species has been observed even as early as third week of August (JH) and as late as the first week of May (SS, MBK). This species is a partial passage migrant in October (MBK). Peak warbling months are November and February (MBK).

1606. *Phylloscopus occipitalis.* Large Crowned Leaf Warbler. Two birds each observed at Shankarapuram on 6 April 1986 (MBK) and at IISc on 22 November 1990 (LS).

MUSCICAPIDAE: TURDINAE

1644. *Erithacus svecicus.* Bluethroat. Not too common winter visitor. Arrives in November and stays till March. Found in paddy fields, parthenium patches near tanks and vegetated wet ravines, but, paddy fields are preferred habitats (SS).

1650. *Erithacus brunneus.* Bluechat. One record from IISc of a ♀ bird ★ found dead on a balcony on 9 May 1989 (Shyamal, 1990), one male seen in Muthyala maduvu on 15 April 1990 (Prasad & Srinivasa, 1993), and another bird at GKVK on 15 February 1992 (KPK).

1662. *Copsychus saularis.* Magpie-Robin. Common breeding resident. Distribution subject to availability of shady woodlands and gardens. Population seems to be decreasing with the loss of appropriate habitats,

particularly nesting sites. Breeds from February to June. Readily takes to nest boxes.

1672. *Phoenicurus ochruros.* Black Redstart. Uncommon winter visitor. Frequents open stony areas with scattered low branching trees in the city outskirts. One bird was seen roosting in a recess in the porch of a building in the Seventies (George, 1976).

☆ **1697. *Saxicola torquata.* Stone Chat.** Rare winter visitor. Shares the habitat of the Redstart and in addition is found in harvested dryland cultivations.

1701. *Saxicola caprata.* Pied Bush Chat. Common breeding resident. Frequents open areas, cultivated areas and open scrub. Breeds from March to June. Nests have also been observed in October and November.

1720. *Saxicoloides fulicata.* Indian Robin. Common breeding resident. Found in rocky areas with or without scrub and open or cultivated areas close to scrub. Breeds from March to July.

1723. *Monticola cinclorhynchus.* Blueheaded Rock Thrush. Rare winter visitor. Seen from October to March (MBK). According to Ali and Ripley (1972), and Ripley (1982) peninsular India other than the Western Ghats is not within its distributional range. In Bangalore the species frequents gardens and wooded areas, and is regularly seen in IISc. Usually found singly. Males seem to be more common (MBK).

1726. *Monticola solitarius.* Blue Rock Thrush. Uncommon winter visitor. Found in rocky scrub. One female observed staying in the same backyard from 3 March to 2 April (SS).

1731. *Zoothera wardii.* Pied Ground Thrush. One female seen in the Botanical Garden at GKVK on 14 October 1990 (SK, MBK).

24 Jan 93
1697. 21 Jan 94 Hessarghatta
common on lakeside
grass.

1734. *Zoothera citrina.* Whitethroated Ground Thrush. Uncommon, ☆ status unknown. Areas where sighted are: IISc, Bannerghatta Range Forest and Badamanavarthi State Forest. The type locality for the race *Z. c. cyanotus*, Jardine & Selby, is Bangalore.

1755. *Turdus merula.* Blackbird. Single individuals have been observed in a bamboo clump at UAS Hebbal (December 1981, SS) and at Bannerghatta Range Forest (January 1991, JNP, SK). These are subsequent to the 1977 checklist.

PARIDAE: PARINAE

1794. *Parus major.* Grey Tit. Common breeding resident. Frequents scrub with trees, gardens, parks and wooded areas. Breeds from March to June. Nesting sites include nest boxes, lamp shades of street lights, open ends of lamp posts; and holes in Mango trees (JNP, SK, RMA).

1798. *Parus nuchalis.* Whitewinged Black Tit. The only sighting of this species is of a specimen obtained by Stewart at Bangalore (Ali, 1942). The species could be locally extinct. The nearest area where the species has been observed is in the Sangama valley South of Kanakapura about 100 km from Bangalore (SS).

1811. *Parus xanthogenys.* Yellowcheeked Tit. The only sighting of the species is of an individual seen at Bannerghatta National Park on 6 January 1985 (SS).

MOTACILLIDAE

1852. *Anthus hodgsonii.* Indian Tree Pipit. Included in the 1977 checklist. Confirmation desirable. Four birds seen at Yellamallappa chetty tank in January 1988 (MSJ). A single bird seen at IISc on 18 March 1989 could possibly belong to this species (RJRD).

1852. Pair in IISc. Apr. 4, '93

1798. Jerdon (1863)
1734 – regular at Nandi hills

1854. *Anthus trivialis.* Tree Pipit. Rare winter visitor. Frequents dry open country and harvested and ploughed dryland cultivation, all with scattered trees.

1857. *Anthus novaeseelandiae.* Paddyfield Pipit. Not too common breeding resident. Found in open meadows around tanks, open areas, dry paddy fields and open scrub. Breeds from February to May.

1874. *Motacilla indica.* Forest Wagtail. A bird seen in October 1974 at the Indian Plywood Industries Research Institute Campus (George, 1976). At GKVK, single birds were seen on 21 April 1991 (KPK) and 23 October 1992 (SS).

1875. *Motacilla flava thunbergi.* Greyheaded Yellow Wagtail. Common winter visitor. Found on meadows surrounding tanks and paddy fields.

1876. *Motacilla flava bheema.* Blueheaded Yellow Wagtail. Four birds at Byramangala reservoir (JNP, AKR, MSJ, AM) and one at Madivala tank (MSJ, JH) in January 1990. This race is usually overlooked because it is found mixed with *M. f. thunbergii.*

1878. *Motacilla flava melanogrisea.* Blackheaded Yellow Wagtail. Uncommon winter visitor. Often found mixed with other races.

1884. *Motacilla cinerea.* Grey Wagtail. Common winter visitor. Generally seen from September to April. Often comes into gardens and parks within the city.

1885. *Motacilla alba.* White Wagtail. Common winter visitor. Found in dryland cultivation, and meadows around tanks. A large roost of the species has been in existence since five years in Seshadripuram on *Michaelia champaka* trees (SSr).

1891. *Motacilla maderaspatensis.* Large Pied Wagtail. Common breeding resident. Breeds from January to June. Often nests on rooftops

and other man made structures like water tanks. Was once observed nesting on a travelling crane at IPIRI (JG). Most common of the wagtails in residential areas.

DICAEIDAE

1892. *Dicaeum agile.* Thickbilled Flowerpecker. Rare. Only about half a dozen sightings after the 1977 checklist. Seems to prefer more densely wooded areas than the next species (JNP). Takes fruits of both Mulberry and Singapore Cherry (SS).

1899. *Dicaeum erythrorhynchos.* Tickell's Flowerpecker. Abundant breeding resident. In scrub jungle, feeds on Lantana flowers and fruits (MBK). Groups of up to twenty birds have been observed feeding on the fruits of *Securinega leucopyrus* and *Erythroxylon monogynum.* Nests with young have been seen in August. An instance of a bird not only taking an insect caught in a spider web but also taking the web itself later was observed in January 1991 (JNP, SK). Birds can easily be attracted to gardens by planting Singapore Cherry (MBK).

NECTARINIIDAE

1907. *Nectarinia zeylonica.* Purplerumped Sunbird. Abundant breeding resident. The most common sunbird in Bangalore. Feeds on the nectar of *Helicteres isora* (JNP), *Tabebuia*, *Jacaranda*, *Callistemon lanceolatus*, *Lantana* (June-July), and *Malva viscus* where it robs the mucilage by puncturing the corolla at the flower base (Verghese, 1977). Has also been seen feeding on *Lantana* fruit pulp (SS). The breeding season extends from January to September with a gap during May and June.

1911. *Nectarinia lotenia.* Loten's Sunbird. Uncommon resident seen at Lalbagh (from March to June), Bannerghatta National Park (MBK), Badamanavarthi State Forest, VM Temple area (JNP, AM, SK) and IISc (LS). A male has been heard singing in June 1980 (MBK). Courtship has

Malva viscus arboreum ?

been observed in June 1989 (JH, MSJ, GSA). Has been seen feeding on the nectar of *Calotropis procera*, *C. gigantea* and *Butea* (JNP).

1917. *Nectarinia asiatica.* Purple Sunbird. Common breeding resident. Frequents a variety of habitats like gardens, parks, scrub and wooded areas. Has been seen taking nectar from the flowers of *Ixora*, *Tabebuia avellandiae*, *Jacaranda*, *Loranthus*, etc. This species has a nesting habit peculiar to this zone. It builds its nests within the cobweb mass of the Eresid (social) spider, *Stagodyphus sarcinorum*. Seen in eclipse plumage in August and September. Over 50 birds seen aggregating to sip nectar from the flowers of a large bed of *Stachytarpheta indica* at Badamanavarthi State Forest on 19 August 1990 (SS, SK, JNP, AM).

ZOSTEROPIDAE

1933. *Zosterops palpebrosa.* White-eye. Abundant breeding resident. Nests have been observed in January, May and July. Six birds seen forming the core of a mixed hunting party at UAS Hebbal feeding on Mango Leaf-hoppers (*Idiocerus*) in February 1984. The leaf-hoppers disturbed from the Mango inflorescence were being caught by four Small Green Bee-eaters and two Redbreasted Flycatchers (SS).

PLOCEIDAE: PASSERINAE

1938. *Passer domesticus.* House Sparrow. Abundant breeding resident. Nests have been observed from April to October. Has been seen feeding on *Parthenium* flowers and seed, and on Avare Pod Borer (*Adisura atkinsonii*). Though the birds forage in the city outskirts, they return to the urban areas to roost on Mango, Sampige, Pomogranate, etc. The type locality for the Subcontinent race has been restricted to Bangalore by Kinnear (1925). One bird at Madivala tank taking aquatic insects was observed in January 1991 (BAS, BKC, JH).

1949. *Petronia xanthocollis.* Yellowthroated Sparrow. Included in the 1977 checklist; no recent records.

PLOCEIDAE: PLOCEINAE

1957. *Ploceus philippinus.* Baya Weaver Bird. Common breeding resident. Usually breeds from May to October. In cultivations, when requisite conditions are available (eg. fully grown wet sugarcane amidst paddy fields) they start breeding in April. Once common at IISc, but locally extinct now with the reclamation of the marsh and removal of wild Date (*Phoenix sylvestris*) on which nesting colonies were found (RJRD). Feeds on the seeds of Barnyard Millet (*Echinochloa colona*), Giant Napier Grass (*Panicum maximum*), Little Millet (*P. miliare*), Foxtail Millet (*Setaria italica*), Jowar (*Sorghum vulgare*), Bajra (*Pennisetum typhoides*), and Paddy (*Oryza sativa*). Roosts communally with munias and wagtails, and forms day-roost sites in its feeding areas. Old nests of this species are used by Whitethroated, Whitebacked and Blackheaded Munias (SS).

1962. *Ploceus manyar.* Streaked Weaver Bird. Not too common breeding resident. Breeds from January to June in Bulrush (*Typha*) growing in shallow waters. Two known breeding sites at Sankey tank and Hebbal tank have been lost due to disturbance from boating and mechanised fishing (SS, JNP).

PLOCEIDAE: ESTRILDINAE

1964. *Estrilda amandava.* Red Munia. Uncommon breeding resident. Prefers more wet areas than other species of munias. Breeds from September to January. In paddy fields the globular nests of dry paddy leaves are placed just above the water level on a single clump of Paddy. This species feeds in pure flocks though it roosts communally with other munias and weaver birds.

1966. *Lonchura malabarica.* Whitethroated Munia. Common breeding resident. Prefers drier areas than other munias and nests in thorny bushes in scrub, and citrus plants in citrus orchards. Densities are low in paddy fields. Loose nesting colonies are found on *Acacia nilotica* plantations in foreshores of tanks (WC,1990). Breeds from September to

January. The species has been seen feeding on Bajra and Foxtail Millet along with Spotted, Blackheaded and Whitethroated Munias (Verghese and Chakravarthy, 1982a, 1982b).

1968. *Lonchura striata.* Whitebacked Munia. Uncommon breeding resident. More common in paddy fields than in other habitats. Feeds and roosts communally with other munias and weaver birds. A nest has been found in a well wooded area in Bannerghatta State Forest on 6 September 1981 (MBK).

1974. *Lonchura punctulata.* Spotted Munia. Common breeding resident. Most common and most widespread of the munias. Nests have been observed in March, and from June to January. Food plants are same as for the Baya given above. Densities in paddy fields are very high (SS).

1978. *Lonchura malacca.* Blackheaded Munia. Not too common breeding resident. Nests in Bulrush (*Typha*) where the nests are placed just above the water level. In sugarcane and Napier grass fields, where the species tends to breed in loose colonies, nests are placed well above the ground (SS). Nests have been observed in August and September. On one occasion three adults were found coming out of a nest which held ten eggs! (SS). The brownbellied subspecies, *L. m. rubroniger* was seen along with the whitebellied subspecies before 1986 in the marsh near Banashankari temple (SK, JNP).

FRINGILLIDAE: CARDUELINAE

2011. *Carpodacus erythrinus.* Common Rosefinch. Sightings are as follows: four females feeding on seeds of Bamboo (*Dendrocalamus strictus*) on 17 January 1991, two males and two females on 27 January 1991 at Bannerghatta Range Forest, a male and three females at Muthyala maduvu on 3 February 1991 (SK, JNP) and one bird at Hebbal on 12 January 1991 (KPK).

EMBERIZIDAE

2043. *Emberiza melanocephala.* Blackheaded Bunting. Included in the 1977 checklist.

2044. *Emberiza brunniceps.* Readheaded Bunting. Included in the 1977 checklist.

BIRDWATCHING IN BANGALORE: THE PLACES

J.N.Prasad, M.B.Krishna and S.Subramanya

"Ten miles west of Bangalore" is a phrase which one comes across more than once, while searching old records for species occurrences. The Great Indian Bustard, the Whitewinged Black Tit, the Indian Courser, all occurred in this area. This place, if we add up references for many decades, had mango groves, grasslands, an irrigation tank, and was a place perhaps much frequented by the old British sportsmen / hunters, especially army officers. Early naturalists had no reason to be very definite about exact locations of good sites, as undisturbed habitats were quite widespread and human activities localised. The situation today is quite the opposite. We hence felt that we should at least list out the most frequently visited places by birdwatchers of our generation. This is so that someone, many decades from now, could be spared the trouble of figuring out where we went to watch birds! It is also fairly certain that information on birds of Bangalore would have been collected or compiled by some of the early naturalists. We, however, have not come across any such compilation.

This chapter thus is intended to give a very broad overview of birdwatching sites in and around Bangalore (see Map). Table 2 lists out the non-wetland sites with the component habitats they have. Table 3 lists the irrigation tanks (wetland sites) which have been covered in the Asian Midwinter Waterfowl Censuses. The censuses were commenced in Bangalore in a small way in 1987, the very first year a co-ordinated effort was started in India.

The forest areas around Bangalore

The forest areas closest to Bangalore are in the south, and are the State Forests of Kalkere, Bannerghatta, Ragihalli, Kardikal, Madeshwara and Badamanavarthi. The first four come under the Bannerghatta National Park. Permission from the Forest Department is required to visit all these areas. A brief note on each of these forests follows.

Bannerghatta National Park: The range totally covers an area of 104 sq. km. A well wooded zoological park is situated here, with many "safari" areas. The herbivore safari offers excellent opportunities for birdwatching and is dominated with bamboo. Good bus services are available and birdwatching could be rewarding in any part of the year. Tuesday is a holiday.

Ragihalli State Forest: It has both dry deciduous and scrubby vegetation. Can be approached from Bannerghatta or through a deviation from the Anekal road going to Shivanahalli. It is elephant area and both permission and caution are required when visiting the area.

Karadikal State Forest: A part of the Bannerghatta range, it is best approached via Harohalli on Kanakapura road en route to Anekal. A stream flows through the forest in the rainy season. Best season to visit is from October to February. Only one bus route from City Market.

Kalkere State Forest: Located of Bannerghatta road about 17 km from Bangalore. Rocky hillocks are characteristic of the area. Extensive plantations of *Shorea* and *Eucalyptus*. Suvarnamukhi rivulet which flows through Bannerghatta State Forest (in the rainy season only!) originates here. Good public transport available.

Madeshwara State Forest (Muthyala maduvu): A popular tourist attraction is a water fall located about 38 km southeast of Bangalore in this forest (which is a part of the Bannerghatta range). Called Muthyala maduvu or Pearl Valley, it is located on the Karnataka Tamil Nadu border. The Madeshwara State Forest is continuous with the Tali State Forest of Tamil Nadu. Scrub with impenetrable thickets of *Lantana* and *Pterolobium* present. Bus services are available from City Market. Best season to visit is from July to January.

Badamanavarthi State Forest: Located some 22 km south of Bangalore off Kanakapura road, beyond Valley School. Habitats range from a well wooded dry deciduous patch along a nullah to scrub

vegetation and dryland cultivation. The stream which flows in the rainy season is impounded at a tank which attracts waterbirds. *Eucalyptus* and *Acacia auriculiformis* have been extensively planted by the Karnataka Forest Department. Best time to visit is from July to February.

The wetlands around Bangalore

The waterfowl censuses have been conducted quite thoroughly in Bangalore. Table 3 lists the sites visited. Each irrigation tank has Paddy fields downstream and dryland cultivation upstream. The Forest Department has planted-up foreshores of many tanks with *Acacia nilotica* and other tree species which provide shelter to waterbirds. Readers are referred to Chakrapani et al.(1990) for further details and notes on selected tanks. The report gives details on the water quality and plankton of the tanks, as also the threats and disturbances affecting them. Many more tanks have been handed over to the Forest Department for foreshore planting. The only natural wetlands are streams which go dry in summer. The only perennial streams are those which carry sewage and effluents.

TABLE 2. BIRDWATCHING SITES AND THEIR HABITATS

Site	1	2	3	4	5	6
Badamanavarthi State Forest	+	+	+		+	
Bangalore Palace Grounds		+		+		
Bangalore's Tanks	+	+				+
Bannerghatta State Forest	+		+	+		
CPRI Campus		+				
Cubbon Park						
Inst. of Wood Sc. & Tech.				+		
GKVK Campus, UAS			+		+	
Hebbal Campus, UAS	+				+	+
Hesserghatta	+				+	+
IISc Campus	+					
IPIRI Campus				+		
Jakkur Aerodrome						
Jnana Bharathi, BU		+	+		+	
Khodaynagar, Kanakapura rd.	+	+	+		+	
Kumbalgod, Mysore rd.	+	+	+		+	+
Lalbagh	+	+				
Nandi Hills			+	+		
NDRI Campus						
Raja Farm, Kanakapura rd.			+		+	
Raman Research Institute						
Sangama Valley	+		+			

Bangalore's Tanks – aquatic.

Site	7	8	9	10	11
Badamanavarthi State Forest			+		
Bangalore Palace Grounds	+				
Bangalore's Tanks					
Bannerghatta State Forest			+		
CPRI Campus				+	+
Cubbon Park	+		+		+
Inst. of Wood Sc. & Tech.					
GKVK Campus, UAS	+	+	+		
Hebbal Campus, UAS	+		+		
Hesserghatta	+	+	+		
IISc Campus	+				
IPIRI Campus	+				
Jakkur Aerodrome				+	
Jnana Bharathi, BU			+	+	+
Khodaynagar, Kanakapura rd.			+		
Kumbalgod, Mysore rd.			+		
Lalbagh	+	+			+
Nandi Hills	+				+
NDRI Campus	+				
Raja Farm, Kanakapura rd.			+		
Raman Research Institute	+				
Sangama Valley			+		

Index to Table 2

1	Aquatic
2	Barren land
3	Scrub land
4	Woodland
5	Dryland cultivation
6	Paddy cultivation
7	Parkland
8	Orchards
9	Nala
10	Grassland
11	Urban Garden

TABLE 3. IRRIGATION TANKS SURVEYED DURING THE WATERFOWL CENSUSES

Tanks surveyed	°N	°E
Agara	12°53'	77°39'
Allalasandra	13°05'	77°34'
Alur	13°06'	77°28'
Ammanimuli	13°14'	77°39'
Anakanagondi	13°27'	77°43'
Anchepalya	13°03'	77°29'
Anekal		
Anneswara	13°13'	77°44'
Arashinakunte	13°05'	77°26'
Ardeshahalli	13°14'	77°33'
Arehalli	12°46'	77°45'
Attibele		
Bagalur	13°08'	77°39'

Baiyyappanahalli	12°59'	77°38'
Bandakodigenahalli	13°11'	77°41'
Bayappanahalli		
Bellandur	12°57'	77°40'
Bhimanahalli	12°48'	77°24'
Bidaraguppe		
Bidare Kere	12°48'	77°36'
Binnamangala	13°05'	77°25'
Bodhigrama	12°49'	77°35'
Bommasandra	12°48'	77°42'
Bommashettyhalli	13°08'	77°25'
Budigere Ammanni	13°09'	77°45'
Byramangala	12°46'	77°26'
Chandrapura	12°48'	77°42'
Channahalli	13°11'	77°36'
Channammanna Deepakana		
Chaudanahalli	13°07'	77°65'
Chikka Begur	12°53'	77°38'
Chikka Hoskote	13°05'	77°46'
Chikka Hulimavu	12°53'	77°35'
Chikka Jala	13°10'	77°38'
Chikka Sanne	13°14'	77°41'
Chikka Togur	12°51'	77°39'
Dasanapura	13°05'	77°26'
Dasarahalli	13°19'	77°43'
Devara Kere	12°33'	77°54'
Dodda Begur	12°52'	77°38'
Dodda Gubbi	13°04'	77°40'
Dodda Hulimavu	12°52'	77°35'
Dodda Jala	13°10'	77°39'
Dodda Nekkundi	12°58'	77°45'
Dodda Sanne	13°13'	77°41'
Dodda Togur		

Dodda Tumkur	13°14'	77°31'
Doddana		
Dommasandra		
Dore Kere	12°54'	77°32'
Dyavasandra	12°46'	77°38'
Gabbadi		
Ganaldoddi	12°41'	77°27'
Gantiganahalli	13°08'	77°35'
Gopalapura	12°47'	77°31'
Gottigere	12°51'	77°35'
Gulimangala	12°51'	77°42'
Gummanahalli	13°08'	77°41'
Gunjur	12°55'	77°44'
Gunjurpalya	12°55'	77°43'
Guttepalya	12°47'	77°31'
Hale Gabbadi		
Halnayakanahalli	12°53'	77°41'
Haragadde	12°45'	77°39'
Harohalli-n	13°08'	77°33'
Harohalli-s	12°41'	77°28'
Hebbal	13°03'	77°34'
Hennagara	12°47'	77°40'
Hennur	13°02'	77°38'
Hesserghatta	12°59'	77°29'
Hire Kere	12°57'	77°28'
Hitarahalli	13°08'	77°44'
Hosa Kere		
Hosakote	13°05'	77°45'
Hoskerehalli	12°56'	77°31'
Hullur	13°06'	77°49'
Huskur-n		
Huskur-s	12°52'	77°43'
J.P.nagar		

Jakkur	13°05'	77°36'
Jalige	13°13'	77°34'
Jigani	12°47'	77°38'
Jugavadi	12°46'	77°46'
Kaggalahalli	12°44'	77°28'
Kaglipura	12°48'	77°30'
Kaikondanahalli	12°55'	77°40'
Kalkere Tank	13°03'	77°40'
Kallanadoddi		
Kanchigaranahalli	12°43'	77°26'
Kandyara	13°26'	77°44'
Kannamangala	13°13'	77°40'
Kannehalli	12°58'	77°29'
Kanva		
Karmalaram		
Kelaginathota	13°25'	77°44'
Kempabudhi		
Kengeri-upanagara	12°55'	77°29'
Kodathur	13°13'	77°31'
Kodigehalli	13°04'	77°33'
Kodipalya-nagaruru	13°06'	77°26'
Kogilu	13°06'	77°36'
Kommaghatta	12°56'	77°28'
Kumbalagodu	12°53'	77°27'
Lalbagh	12°57'	77°34'
Madarahalli	13°07'	77°63'
Madivala	12°54'	77°36'
Madure Kere	13°13'	77°27'
Manchappanahalli	13°08'	77°43'
Mantapa	12°48'	77°35'
Melinathota	13°16'	77°43'
Mugbala	13°07'	77°53'
Muthanallur	12°49'	77°44'

Nagavara	13°03'	77°35'
Nallurhalli	12°58'	77°44'
(Whitefield)		
Nalsandra	13°26'	77°47'
Nayandahalli	12°56'	77°30'
Nelamangala	13°06'	77°24'
Nelligudda		
Neralur		
Obichudanahalli	12°50'	77°31'
Odke	12°41'	77°27'
Puttenahalli	12°54'	77°34'
Rachenahalli	13°04'	77°36'
Rampura	13°03'	77°41'
Rayasandra	12°52'	77°41'
Sadahalli	13°13'	77°38'
Sakalvara	12°49'	77°36'
Sankey	13°01'	77°33'
Sarjapura	12°52'	77°46'
Seshagirihalli	12°51'	77°24'
Shettihalli	12°38'	77°08'
Singana Agrahara	12°50'	77°43'
Singanayakanahalli	13°09'	77°33'
Singayyana Kere		
Somanahalli	12°37'	77°30'
Suradenapura	13°12'	77°32'
Taralu	12°47'	77°30'
Tat Kere	12°39'	77°13'
Tatguni	12°50'	77°30'
Tatguppe	12°46'	77°46'
Tavare Kere	13°08'	77°56'
Tubarahalli	12°44'	77°58'
Ulsoor	12°59'	77°42'
Uttarahalli	12°33'	77°54'

Varthur	12°57'	77°44'
Vasudevapura	12°48'	77°31'
Vengaiyya	13°01'	77°42'
Yamri	12°52'	77°45'
Yediur		
Yelahanka	13°07'	77°35'
Yelchehalli	13°08'	77°55'
Yellamallappachetty	13°02'	77°44'

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APPENDIX: EXPLANATORY NOTES AND CREDITS

ABUNDANCE / OCCURRENCE SCALE

abundant [>90% of the time]
common
not too common
uncommon
rare [<10 sightings]

STATUS TERMS

breeding resident
non-breeding resident
winter visitor
straggler
vagrant

The status terms refer to our area only and do not refer to the status in the Peninsula.

ABBREVIATIONS

BWFCB: Birdwatchers' Field Club of Bangalore.
CPRI: Central Power Research Institute, C.V.Raman Road.
GKVK: University of Agricultural Sciences, Gandhi Krishi Vignana Kendra Campus, Bellary Road.
Hbk: Ali, Salim & Ripley, S.D. (1968-74). Handbook of the birds of India and Pakistan. 10 volumes. OUP.
IISc: Indian Institute of Science, C.V.Raman Road.
IPIRI: Indian Plywood Industries Research and Training Institute, Tumkur Road.
JB: Bangalore University, Jnanabharathi Campus, Mysore Road.
NDRI: National Diary Research Institute, Hosur Road.
OSI: Ornithological Society of India.

VMTA: Vajra Muneshvara Temple area, Kanakapura road; "VM Temple area" has also been used in some places.
WC: Asian Midwinter Waterfowl Census in the Bangalore area conducted by the BWFCB and the reports thereof. 1987 onwards.

NOTES

The order of names / initials listed below or cited in the text does not indicate, imply or suggest any priority or extent of contribution.

While every effort has been made to keep information, credits and citations correct and accurate, no liability is taken or assumed for any errors or omissions, if any, that might have crept in while making this checklist.

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Paratype (♂ –)

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[+ Lesser flamingo
Greater – "]

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– addnl. species.

10 April 1998 – Sandgrouse, Painted
Bilikal. S.F.

Sept 2000 – Brown Hawk Owl –
ISI campus – Amber Habib

check scientific names of
Bandicota - spp. p. 35
Tatera
Golunda

TNA Perumal - Pelicans breeding at hessarghatta
green pigeons in Bangalore (1963)

Subbi, (Nov ~~198~~ 1998 ?)
Sep/
Wryneck in GKVK

Blacknaped Oriole BNP
JNP & co 28 March 1999

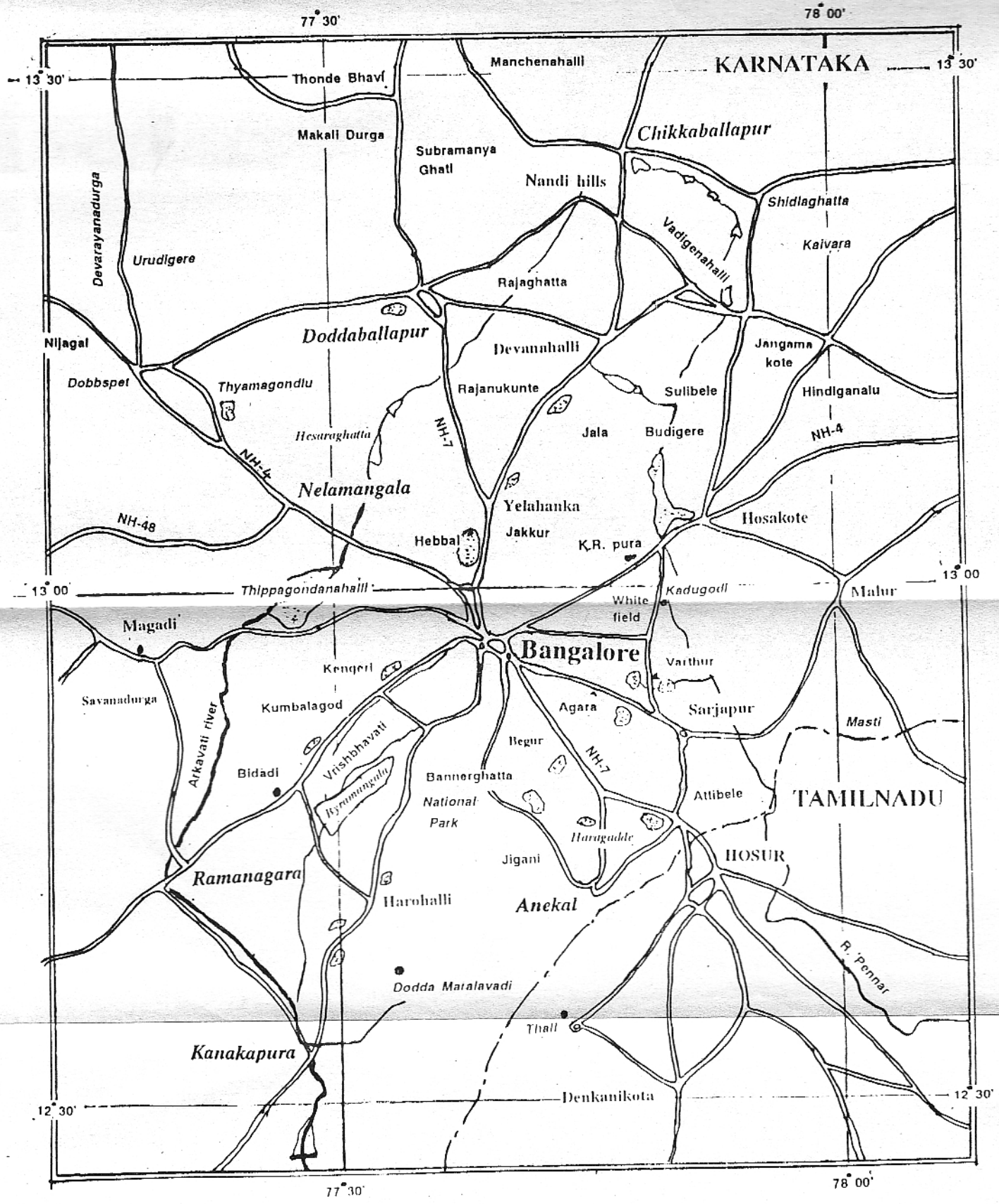
Spotbitted pelican. March 1999 (End of)
S Karthikeyan et al.
Sanctuary tank.
1 April 99 - 2 Cormorants

Yellow bittern
Dec 2000 - Sulphur bellied leaf
Yellow warbler

Black bittern
Jan 2001
CUPA?

Emerald Cuckoo
Jan 2 Manchanabele
NR Giridhar

Indian Agricultural Research Institute
New Delhi-110 012



Map of Bangalore and surrounding areas	Scale 1:500000
Birdwatchers Field Club of Bangalore	Map by : ಟಿ.ಎಸ್. T. S. Srinivasa

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